APPENDIX A

COMMITTEE MEMBERSHIP

Technical Advisory Committee Members

New Hampshire

Name	Association/Affiliation
Richard Hill	Center for Assessment, Board of Trustees Chair
Scott Marion	Center for Assessment, Associate Director
Charles Pugh	Moultonborough District Assessment Coordinator
Rachel Quenemoen	University of Minnesota
Stanley Rabinowitz	WestEd, Assessment & Standards Development Services Director
Christine Rath	Concord, Superintendent
Steve Sireci	University of Massachusetts Professor
Carina Wong	Consultant

Rhode Island

Name	Association/Affiliation
Sylvia Blanda	Westerly School Department
Bill Erpenbach	WJE Consulting, Ltd.
Richard Hill	Center for Assessment, Board of Trustees Chair
Jon Mickelson	Providence School Department
Joe Ryan	Consultant
Lauress Wise	HumRRO, President

Vermont

Name	Association/Affiliation
Dale Carlson	NAEP Coach, NAEO-Westat
Lizanne DeStefano	Bureau of Educational Research
Jonathan Dings	Boulder, Co. School District
Brian Gong	Center for Assessment, Executive Director
Bill Mathis	Rutland Northeast Supervisory Union, Superintendent of Schools
Bob McNamara	Washington West Supervisory Union, Superintendent of Schools
Bob Stanton	Lamoille South Supervisory Union, Assistant Superintendent of Schools
Phoebe Winter	Consultant

Item Review Committee
April 10 & 11, 2006
Grades 3-8

New Hampshire

First Name	Last Name	School/Association Affiliation	Position
Bob	Blodgett	White Mountain Regional	Special Education grades 5/6
Dana	Bousquet	Merrimack Valley SD	English language arts Teacher
Lori	Bresnahan	Shaker Regional District	Reading specialist
Mary Samantha	Briggs	Henry Wilson Memorial	Reading specialist
Jessica	Carloni	Rochester Middle School	English language arts teacher
Cecile	Carlton	Nashua School District	Math Coordinator (K-12)
Judith	Carr	Goffstown SD	English language arts Teacher
Kristen	Davis	Charlotte Avenue	Teacher (grades 1, 3-6), and Reading specialist
Kathleen	Drolet	Nashua School District	ELA coordinator (grade K-12)
Patricia	Flynn	SAU41	English language arts Teacher
Kathy	Fowler	Timberland Regional Middle	Teacher (grade 6)
Erika	Greenwald	Keene Middle School	Teacher (grade 8)
Martha	Hardiman	Whitefield District	English language arts teacher (middle school)
Denise	Keeler	Chichester Central	Vice Principal, Teacher (grade 6)
Dianne	Klabechek	Belmont Middle School	Teacher (grade 7)
Patricia	Maestranzi	Salem District	Middle school Reading teacher
Wendy	Mahoney	Barka School	English language arts Teacher
Cindy	Matthews	Portsmouth School District	Teacher
Noreen	McAloon	Pelham Middle School	Reading Specialist
John	Potucek	Southside Middle	Teacher G8 Math
Diane	Riehl	McKelvie Middle	Teacher (grades 6, 7, 8), Math professor
Sara	Scheuch	KRES-New London	Math teacher (grade 3)
Cathy	Stavenger	Memorial Elementary	Teacher (grade 3)
Kathy	Treamer	Groveton Elementary	Math Recovery/Title I Math teacher (grades K-3)
Donna	Tremblay	Mountain View Middle School	Teacher (grade 5)
Deborah	Vachon	Derry Cooperative School District	Grade 3 teacher

Item Review Committee
April 10 & 11, 2006
Grades 3-8

Rhode Island

First Name	Last Name	School/Association Affiliation	Position
Amy	Anzalone	Western Coventry Elementary	Reading teacher (grade 2)
Marcia	Cross	Nicholas Ferri Middle	Reading teacher (grade 8)
Jaclyn	Cunningham	North Smithfield Elementary School	Literacy Coach (grade 3)
Jane Ann	Dennis	Pocasset Elementary	Mathematics Title I teacher (grade 1-4)
Amanda	DeSantis	North Smithfield Elementary School	Classroom Teacher (grade 3)
Kerri	Dubord	Aldrich Jr. High	Mathematics teacher (grade 8)
Rona	Fennessy	Charles Fortes Elementary School	Classroom Teacher (grade 6)
Barbara	Fox	Birchwood Middle	Mathematics
Colette	Gagnon	Burrillville Middle	Mathematics teacher (grade 8)
Jenny	Gaynor	Hampden Meadows	Mathematics teacher (grade 4)
Judy	Hamilton	Hampden Meadows Elementary School	Numeracy Coach (grade 4-5)
Gina	Kilday	Metcalf Elementary	Mathematics teacher (grade 3)
Cherae	Klein	Dr. Halliwell Memorial	Reading specialist/Literacy coach (grade 4, 5, 6)
Wendy	Lapuc	Samuel Slater Jr. High School	Math Special Education Teacher (grade 6)
Kim	McCaughey	Pawtucket School Department	Literacy coach (grades K-12)
Barbara	Moradian	Veterans School	Literacy coach (grades K-5)
Christine	Murphy	Johnston Public Schools	Mathematics Special Education teacher
Kathleen	Pora	Harris	Reading specialist (grades 2, 3, 4)
Kevin	Seekell	Flat River Middle	Mathematics Curriculum coordinator (grades 6, 7, 8)
Stacey	Souza	Flat River Middle	Special Education teacher (grade 7)
Mary Ellen	Sposato	Richmond Elementary School	Classroom Teacher (grade 4)
Tanin	Tickner	Portsmouth Middle	ELA teacher (grade 7)
Catherine	Wallace	Flat River Middle	ELA teacher (grade 8)

Item Review Committee
April 10 & 11, 2006
Grades 3-8

Vermont

First Name	Last Name	School/Association Affiliation	Position
Mary Lou	Abele-Austin	Thatcher Brook Primary	Mathematics coordinator (grades preK-6)
Carol	Amos	Twinfield Union	Teacher/Math Coordinator
Julie	Bacon	Deerfield Valley	Teacher (grade 3), School Math leader
Carol	Cavanaugh	Shelburne Elem/Middle School	School Literacy Leader
Gail	Curtis	Rutland Central Supervisory Union	Literacy coach
Julie	Dolan	Townshend Elementary	Teacher
Kristy	Ellis	Orleans Essex North Supervisory Union	Literacy coach
Amy	Gale	Caledonia North SU	Math teacher
Courtney	Giknis	Randolph UHSD	Language Arts/English
Kelley	Green	Central	Teaches a 3/4 everyday math class.
Susan	Hackett	Sunderland Elementary	Principal
Jennifer	Harper	Cavendish Town Elementary	Teacher
Sharon	Hunt	Gilman Middle	Special Educator
Todd	Jemison	South Burlington School District	Special Education, Math specialist
Catherine	Kenyon	Rochester School	Teacher
Beth	Mallon	Blue Mt. Union School	School Literacy Coordinator
Elizabeth	Miller	Hardwick Elementary	Math network leader
Gail	Moskowitz	Thatcher Brook	Literacy Coordinator
Bobbie	Nelson	Blue Mountain Union	Special Education/Reading Specialist
Linda	Parker	Windsor State Street School	Math Teacher Leader
Julia	Payne-Lewis	Academy School	Math teacher
Mary	Reid	Brattleboro Middle School	Literacy Network Leader
Dena	St. Amour	Swanton Central	Reading content specialist
Katie	Sullivan	Warren Elementary	Teacher
Diane	Taran-Baker	Lothrop Elementary	Reading Specialist, Teacher of grades K-6, Literacy Trainer

Item Review Committee
July 18 & 19, 2006
Grade 11

New Hampshire

First Name	Last Name	School/Association Affiliation	Position
Sondra	Hardin	Stevens High School	English language arts teacher
Kathy	Drolet	Nashua High School	ELA coordinator (grade K-12)
Ann	West	Pinkerton Academy	English language arts Teacher
Jack	Finley	Franklin High School	English language arts Teacher
Marcia	Goodnow	Dover	English language arts Teacher
Michael	Williamson	Hollis Brookline High School	English language arts Teacher
Susan	Olson	Wolfeboro	English language arts Teacher
Carrie	Costello	Conway High School	English language arts teacher
Alan	Halle	Nashua High School	Mathematics Teacher
Swati	Sharman	Manchester Memorial High School	Mathematics Teacher
David	Gilcreast	Pelham High School	Mathematics Teacher
Jeff	Nielson	Littleton High School	Mathematics Teacher

Rhode Island

First Name	Last Name	School/Association Affiliation	Position
Elizabeth	Anderson	Pilgrim High School	ELA Department Chair (grades 9-12)
Marcia	Cross	Nicholas Ferri Middle	Reading teacher (grade 8)
Barbara	Fell	Shea High School	ELA Teacher (grade 10, 11)
Richard	Broomfield	Westerly High School	Math Teacher (grades 9-12)
Carolyn	Lannon	Cranston West High School	Math Coach (grades 9-12)
Patricia	Lytle	Pilgrim High School	Math Department Chair (grades 9-12)
Patricia	McCarthy	Portsmouth High School	Math Classroom Teacher (grades 9-12)
Elaine	Desjardins	Cranston West High School	ELA Program Supervisor (grades K-12)
Mona	Boscia	Cranston West High School	Writing teacher (grade 9-12)

Vermont

First Name	Last Name	School/Association Affiliation	Position
Deborah	Hadeka	Fair Haven High School	HS Eng. Teacher, College instructor, Collage Bd. Pacesetter program
Terri	Vest	Twinfield Union School	National Board Certification in ELA
Matthew	Dickstein	Hazen Union High School	Reading Specialist Certification, School writing Task Force
Teri	Appel	Brattleboro High School	Literacy Network Leader
Sue	Boardman	Brattleboro High School	20 years teaching HS English
Kristin	Johnson	Champlain Valley High School	Literacy Coordinator for District, Learning Specialist
Jim	Getty	Missisquoi Valley UHS	Chairman of the HS English Dept., Writing Network Leader
Marlyn	Woodard	Mt. Anthong UHS	Literature Department Chair
Eric	Wess	Lamoille UMS	Math Teacher, Math MS Network Leader
Sean	Theoret	Enosburg Middle High School	K-12 math Consultant
Laurie	Camelio	Mt. Anthony UHS	Math Chair
Sharon	Fadden	Danville School	AP HS Math Teacher

Bias and Sensitivity Committee
Participants
April 10 & 11, 2006
Grades 3-8

New Hampshire

First Name	Last Name	School/Association Affiliation	Position
Diane	Bush	Jaffrey Rindge Middle School	Guidance
Amanda	Eason	Alton Central	English teacher (grade 7, 8)
Candice	Roux	Bartlett Elementary School	Guidance
Karen	Dow	Southwick	Title 1 Project Manager
Linda	Couture	Sunset Heights/Dr. Crisp	Assistant Principal, former Math & Science teacher

Rhode Island

First Name	Last Name	School/Association Affiliation	Position
Cynthia	Jones	Laurel Hills Elementary	Mathematics coach (grades 3, 4, 5), ELL
Paul	Petit	W.R. Dutemple	Mathematics teacher (grade 5)
Diane	Chase	Woonsocket Middle School	Resource Teacher (grade 7)
Mary	Surber	Portsmouth Middle	Special Education teacher (grade 8)
Linda	Guarino	Northern Elementary	Title I Reading specialist (grades 2, 3)
Carolyn	Mellilo	Robertson	Literacy coach (grades 1-5)

Vermont

First Name	Last Name	School/Association Affiliation	Position
Brenda	Seitz	Austine School for the Deaf	Director of Special Ed. for all VT deaf students
Deborah	Law Fontes	Lyndon Town School	SLP
Darlene	Petke	Central Elementary	Primary/SPED
Pam	Parro	Hardwick Elementary	Assessment coordinator/Reading specialist
Ani	Lutz	Warren Elementary	SLP
Travis	Redman	Rutland Town Elementary	Math & Algebra teacher (grades 6, 8)
Rebekah	Thomas	Flynn Elementary	ESL teacher

Bias and Sensitivity Committee
Participants
December 5 & 6, 2005
Grades 3-8

New Hampshire

First Name	Last Name	School/Association Affiliation	Position
Linda	Couture	Sunset Heights/Dr. Crisp	Assistant Principal, former Math & Science teacher
Karen	Dow	Southwick	Title 1 Project Manager
Amanda	Eason	Alton Central	English teacher (grades 7,8)
Alexander	Markowsky	Lin-Wood Elementary and Middle Schools	School psychologist
Candice	Roux	Bartlett Middle School	Guidance
Sherry	Burbank	Rundlett Middle School	SPED

Rhode Island

First Name	Last Name	School/Association Affiliation	Position
Donna	Couture	Calcutt Middle	SPED teacher (grade 6)
Nancy	Carnevale	Veteran's Elementary	Teacher (grade 5)
Kenny	Duva	Quidnessett Elementary	Classroom teacher/ SPED
Nancy	O'Hare	Captain Issac Paine	English Language Arts/Special Education
Karen	Rebello	Orlo Avenue Elementary	Special Education teacher (grades 2, 3, 4)

Vermont

First Name	Last Name	School/Association Affiliation	Position
Ani	Lutz	Warren Elementary	SLP
Pam	Parro	Hardwick Elementary	Assessment coordinator/Reading specialist
Darlene	Petke	Central Elementary	Primary/SPED
Travis	Redman	Rutland Town Elementary	Math & Algebra teacher (grades 6, 8)
Rebekah	Thomas	Flynn Elementary	ESL teacher
Deborah	Law Fontes	Lyndon Town School	SLP

Bias and Sensitivity Committee
Participants
July 17 & 18, 2006
Grade 11

New Hampshire

First Name	Last Name	School/Association Affiliation	Position
Alexander	Markowsky	Lin-Wood Elementary and Middle Schools	School psychologist
Mary-Jo	Bourque	Manchester Memorial High School	Asst Principal
Deborah	Woelflein	Merrimack School District	Asst Superintendent
Maureen	Richardson	Manchester School District	ELL Coordinator

Rhode Island

First Name	Last Name	School/Association Affiliation	Position
Monique	Rousselle-Condon	West Warwick High School	Math Classroom Teacher (grades 10-12)
Carolyn	Lannon	Cranston West High School	Math Department Chair

Vermont

First Name	Last Name	School/Association Affiliation	Position
James	Pape	Winooski Middle School	Special Education
Maria	Lamson	Chelsea School	Librarian, Mother of multi-racial children

Bias and Sensitivity Committee
Participants
April 11, 2006
Grade 11

New Hampshire

First Name	Last Name	School/Association Affiliation	Position
Heather	Gigliello	Monadnock Regional HS	English Head
Deborah	Woelflein	Merrimack School District	Asst. Superintendent
Mary-Jo	Bourque	Manchester Memorial High School	Asst. Principal
Maureen	Richardson	Manchester School District	ELL Coordinator

Rhode Island

First Name	Last Name	School/Association Affiliation	Position
Ricardo	Pimentel	Shea High School, Pawtucket	ELA Teacher (grades 9, 12)
Barbara	Fell	Shea High School, Pawtucket	ELA Teacher (grades 10, 11)

Vermont

First Name	Last Name	School/Association Affiliation	Position
James	Pape	Winooski Middle School	Special education
Maria	Lamson	Chelsea School	Librarian, Mother multi-racial children
Ana	Law	Windham Southeast SU	ESL District Coordinator
Jennifer	Course	Burlington High School	ESL Teacher
Brenda	Seitz	Austine School for the Deaf	Director of Special Ed. for all VT deaf students

APPENDIX B

TABLE OF STANDARD TEST ACCOMMODATIONS

Table of Standard Test Accommodations

Any accommodation(s) utilized for the assessment of individual students shall be the result of a formal or informal team decision made at the local level. Accommodations are available to all students on the basis of individual need, regardless of disability status.

A. Alternative Settings

- A-1 Administer the test individually in a separate location
- A-2 Administer the test to a small group in a separate location
- A-3 Administer the test in locations with minimal distractions (e.g., study carrel or different room from rest of class)
- A-4 Preferential seating (e.g., front of room)
- A-5 Provide special acoustics
- A-6 Provide special lighting or furniture
- A-7 Administer the test with special education personnel
- A-8 Administer the test with other school personnel known to the student
- A-9 Administer the test with school personnel at a non-school setting

B. Scheduling and Timing

- B-1 Administer the test at the time of day that takes into account the student's medical needs or learning style
- B-2 Allow short supervised breaks during testing
- B-3 Allow extended time, beyond what is recommended, until in the administrator's judgment the student can no longer sustain the activity

C. Presentation Formats

- C-1 Braille
- C-2 Large-print version
- C-3 Sign directions to student
- C-4 Read test aloud to student (Mathematics and Session 1 Writing only) [1]
- C-5 Student reads test aloud to self
- C-6 Translate directions into other language
- C-7 Underline key information in directions
- C-8 Visual magnification devices
- C-9 Reduction of visual print by blocking or other techniques
- C-10 Acetate shield
- C-11 Auditory amplification device or noise buffers
- C-12 Word-to-word translation dictionary, non-electronic with no definitions (For ELL students in Mathematics and Writing only)
- C-13 Abacus use for student with sever visual impairment or blindness (Mathematics – Any Session)

D. Response Formats

- D-1 Student writes using word processor, typewriter, computer [2] (School personnel transcribes student responses exactly as written, into the Student Answer Booklet.)
- D-2 Student hand writes responses on separate paper. (School personnel transcribes student responses exactly as written, into the Student Answer Booklet.)
- D-3 Student writes using Brailler (School personnel transcribes student responses exactly as written, into the Student Answer Booklet.)
- D-4 Student indicates response to multiple-choice items. (School personnel records student responses into the Student Answer Booklet.)
- D-5 Student dictates constructed responses (Reading and Mathematics only) to school personnel. (School personnel transcribes student responses exactly as written, into the Student Answer Booklet.)
- D-6 Student dictates constructed responses (Reading and Mathematics only) using assistive technology. (School personnel transcribes student responses exactly as written, into the Student Answer Booklet.)

If an accommodation that is not listed above is needed for a student, please contact the state personnel for accommodations to discuss it.

E. Other Accommodations [3]

- E-1 Accommodations team requested other accommodation not on list and DOE approved as comparable
- E-2 Scribing the Writing Test (only for students requiring special consideration)

F. Modifications [4]

- F-1 Using a calculator and/or manipulatives on Session 1 of the Mathematics Test
- F-2 Reading the Reading Test
- F-3 Other

1. Reading the reading test to the student invalidates all reading sessions.
2. Spell and grammar checks must be turned off. This accommodation is intended for unique individual needs, not an entire class
3. Test coordinators must obtain approval for the accommodation from the Department of Education prior to test administration.
4. All affected sessions using these modifications are counted as incorrect.

APPENDIX C

EQUATING RESULTS

EQUATING REPORT

New England Common Assessment Program 2006-2007 Equating Results

Measured Progress

Final Report

January 2007

NEW ENGLAND COMMON ASSESSMENT PROGRAM
2006-2007 EQUATING RESULTS

The purpose of this document is to summarize the equating results obtained from Measured Progress for NECAP. Presented in this report are various program summary statistics and specific results related to the equating study.

The results of this report are organized as follows:

I. Aggregate Results
   a. Percentage of students by performance level categories
   b. Raw Scores Associated with Cutpoints
   c. Calibration Report – Executive Summary
   d. Summary of Psychometric QC Activities
   e. Equating transformation constants

II. For each grade content:
   a. Δ Plot, *b* plot, *a* plot, TCCs, SS distributions, and Lookup Tables
   b. Rescore Analysis Results

The final results of this equating will be included as part of the 2006-2007 NECAP Technical Manual. If requested Measured Progress will distribute and/or present this report at the next NECAP Technical Advisory Committee Meeting.

Equating was not required for Writing Grades 5 and 8 because a pre-equated solution was used for the forms administered. Results for these two grade/contents are included in Sections I.a and I.b, and the lookup tables as well as the TCCs and Scaled Score distribution are provided in Section II.a.

SECTION I.A

NECAP

PERCENTAGE OF STUDENTS BY PERFORMANCE LEVEL CATEGORIES

*RI Preliminary NECAP Results**
2006-2007, 2005-2006

Mathematics	Grade 03		Grade 04		Grade 05		Grade 06		Grade 07		Grade 08	
	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006
Proficient with Distinction	16	12	10	12	13	11	13	10	12	10	11	11
Proficient	40	39	44	40	44	41	41	39	39	37	37	37
Below Proficient	24	25	24	23	21	22	21	23	20	22	19	21
Substantially Below Proficient	20	25	22	25	21	25	25	28	28	31	33	32
Average Scaled Score	341	339	440	440	541	540	640	639	739	738	838	838

Reading	Grade 03		Grade 04		Grade 05		Grade 06		Grade 07		Grade 08	
	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006
Proficient with Distinction	13	13	14	13	15	13	11	11	10	10	10	10
Proficient	52	47	49	47	50	47	53	47	49	46	49	45
Below Proficient	20	24	23	22	21	25	23	27	28	26	26	27
Substantially Below Proficient	15	16	13	17	14	16	13	15	13	17	16	17
Average Scaled Score	344	343	443	442	544	543	644	642	743	742	842	842

Writing	Grade 05		Grade 08	
	2006-2007	2005-2006	2006-2007	2005-2006
Proficient with Distinction	15	12	9	6
Proficient	36	43	33	42
Below Proficient	27	30	35	33
Substantially Below Proficient	22	15	22	18
Average Scaled Score	540	539	838	838

Percentages may not sum to 100 due to rounding.

Printed on 01/05/2007

*NH Preliminary NECAP Results**
2006-2007, 2005-2006

Mathematics	Grade 03		Grade 04		Grade 05		Grade 06		Grade 07		Grade 08	
	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006
Proficient with Distinction	20	19	15	16	18	17	21	15	17	15	14	13
Proficient	49	49	51	49	49	46	46	46	45	44	43	43
Below Proficient	20	20	21	21	18	19	16	20	18	20	19	22
Substantially Below Proficient	10	12	13	14	15	18	16	19	20	21	24	22
Average Scaled Score	345	344	444	444	544	543	644	642	742	741	841	840

Reading	Grade 03		Grade 04		Grade 05		Grade 06		Grade 07		Grade 08	
	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006
Proficient with Distinction	18	18	17	13	16	15	14	12	9	11	10	11
Proficient	57	53	55	56	56	52	58	53	58	55	56	51
Below Proficient	15	18	19	20	18	22	19	24	25	23	24	26
Substantially Below Proficient	10	11	9	11	10	11	9	11	8	11	10	12
Average Scaled Score	347	346	446	444	545	544	646	645	745	744	844	844

Writing	Grade 05		Grade 08	
	2006-2007	2005-2006	2006-2007	2005-2006
Proficient with Distinction	13	10	8	6
Proficient	37	41	34	43
Below Proficient	29	33	38	35
Substantially Below Proficient	21	15	20	17
Average Scaled Score	540	539	839	838

Percentages may not sum to 100 due to rounding.

Printed on 01/05/2007

*VT Preliminary NECAP Results**
2006-2007, 2005-2006

Mathematics	Grade 03		Grade 04		Grade 05		Grade 06		Grade 07		Grade 08	
	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006
Proficient with Distinction	24	20	16	18	19	17	20	18	20	16	17	17
Proficient	44	45	48	46	46	47	44	46	42	45	42	43
Below Proficient	20	20	21	22	18	18	16	19	17	20	18	21
Substantially Below Proficient	13	15	16	14	17	19	19	16	20	18	23	19
Average Scaled Score	344	344	443	444	543	543	643	644	742	742	841	842

Reading	Grade 03		Grade 04		Grade 05		Grade 06		Grade 07		Grade 08	
	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006	2006-2007	2005-2006
Proficient with Distinction	17	18	17	15	18	15	14	13	13	10	12	13
Proficient	54	51	51	54	51	51	55	53	54	56	53	52
Below Proficient	17	19	20	20	18	24	20	24	24	24	24	25
Substantially Below Proficient	13	12	12	10	12	10	11	9	10	10	11	10
Average Scaled Score	346	346	444	445	545	544	645	645	746	745	844	845

Writing	Grade 05		Grade 08	
	2006-2007	2005-2006	2006-2007	2005-2006
Proficient with Distinction	14	11	11	8
Proficient	36	40	36	47
Below Proficient	26	35	33	31
Substantially Below Proficient	25	15	20	14
Average Scaled Score	540	539	840	840

Percentages may not sum to 100 due to rounding.

Printed on 01/05/2007

SECTION I.B

NECAP

RAW SCORES ASSOCIATED WITH CUTPOINTS

Table I.b.1
Raw Scores Associated with Each Cutscore

			SbP/PP			PP/P			P/PwD			Max Points	
Grade	Content		2006	2007		2006	2007		2006	2007		2006	2007
3	Math		26	26		38	38		55	54		65	65
4	Math		27	26		38	37		54	54		65	65
5	Math		19	20		27	29		48	50		66	66
6	Math		20	19		29	28		50	49		66	66
7	Math		21	19		29	26		46	44		66	66
8	Math		22	18		32	25		51	45		66	66
3	Reading		18	21		28	31		43	46		52	52
4	Reading		23	21		32	31		43	43		52	52
5	Reading		19	18		27	27		39	39		52	52
6	Reading		20	20		29	29		42	42		52	52
7	Reading		20	19		29	29		42	42		52	52
8	Reading		22	21		31	31		43	44		52	52
5	Writing		18	18		23	22		29	27		37	37
8	Writing		18	19		24	25		32	31		37	37

Note 1: Tan shading indicates lower raw scored needed, blue shading indicates higher raw score needed, while no shading indicated no difference between years.

Note 2: The values presented in Table I.b.1 are not the cutscores per se. The cutscores are defined on the θ metric and do not change from year to year. The values in this table represent the raw scores associated with the cutscores, and these values are found via a TCC mapping.

SECTION I.C

NECAP
Calibration Report – Executive Summary

PARSCALE 4.1 was used for all analyses. All command files were set up in a way that all general settings were identical to last year. For example the calibration statement read:

```
CAL GRADED,LOGISTIC,CYCLE=(100,1,1,1,1),TPRIOR,SPRIOR,GPRIOR;
```

Thus, a graded response model was used for the polytomous items, and a 3PLM was used for all MC items. For dichotomously scored short answer items the lower asymptote of the ICC was set equal to 0.0 (i.e., a 2PLM was used). The logistic version of the IRT models was used, and default priors were used for all parameter estimates. Each item occupied its own unique block in the command file; thus, allowing the threshold parameters to vary across the polytomously scored items.

Table 1 shows the number of Newton cycles to conversion for each grade/content. Math grades 7 and 8 required over 80 iterations, but the resulting parameters demonstrated excellent model fit for these two grade/contents (as well as all other grade/contents). In particular for these two grade/contents the largest change in parameter values (from one iteration to the next) was monotonically decreasing and tended to flatten out at towards the end of the calibration process.

Table I.c.1
Number of Cycles to Convergence

Grade/Content	Cycles
MAT03	34
MAT04	25
MAT05	52
MAT06	83
MAT07	80
MAT08	85
REA03	53
REA04	52
REA05	51
REA06	51
REA07	55
REA08	48

For some items the guessing parameter was not fully estimated during the IRT calibration. This is not at all unusual as difficulty in estimating the c-parameter has been well documented in the psychometric literature. After carefully studying these items we found that either fixing the lower asymptote (for example to a value of 0.20), or using a

different starting value[1] for a c-parameter resulted in stable and reasonable estimates for both the *a* and *b* parameters (relative to CTT statistics). This technique also produced item parameters that resulted in excellent model fit (comparing theoretical ICCs to observed ICCs). In Table 2 is a listing of all the items where this type of adjustment was applied.

Table I.c.2
Items with Fixed or Specified Initial c-parameter

GRADE	CONTENT	IREF	ACTION TAKEN	FINAL C-PARAMETER
3	REA	202191	FIXED C=0.15	C=0.150
3	REA	225195	FIXED C=0.15	C=0.150
3	REA	225413	INITIAL C=0.85	C=0.125, SE=0.021
3	REA	230990	INITIAL C=0.65	C=0.123, SE=0.026
3	MAT	226956	INITIAL C=0.65	C=0.125, SE=0.030
3	MAT	223913	FIXED C=0.0	C=0.000
4	REA	203832	INITIAL C=0.40	C=0.101, SE=0.023
4	REA	225673	FIXED C=0.25	C=0.250
4	REA	226202	INITIAL C=0.85	C=0.097, SE=0.017
4	MAT	227058	INITIAL C=0.40	C=0.053, SE=0.017
4	MAT	202397	INITIAL C=0.40	C=0.096, SE=0.029
4	MAT	202500	INITIAL C=0.40	C=0.075, SE=0.021
4	MAT	202504	INITIAL C=0.40	C=0.081, SE=0.022
5	REA	226524	INITIAL C=0.50	C=0.101, SE=0.025
5	REA	201357	INITIAL C=0.50	C=0.093, SE=0.019
5	REA	200150	INITIAL C=0.50	C=0.094, SE=0.021
5	REA	200151	FIXED C=0.00	C=0.000
5	REA	230656	INITIAL C=0.50	C=0.197, SE=0.054
5	MAT	NONE	NONE	NONE
6	REA	227778	INITIAL C=0.95	C=0.167, SE=0.030
6	REA	226612	INITIAL C=0.80	C=0.110, SE=0.022
6	REA	226614	INITIAL C=0.85	C=0.156, SE=0.024
6	REA	226611	INITIAL C=0.30	C=0.041, SE=0.016
6	REA	204559	FIXED C=0.00	C=0.000
6	REA	226751	INITIAL C=0.70	C=0.134, SE=0.031
6	REA	226685	INITIAL C=0.80	C=0.101, SE=0.019
6	REA	226684	INITIAL C=0.00	C=0.031, SE=0.014
6	MAT	203217	INITIAL C=0.50	C=0.052, SE=0.014
6	MAT	203381	INITIAL C=0.40	C=0.391, SE=0.034
6	MAT	198651	INITIAL C=0.90	C=0.179, SE=0.036
6	MAT	225300	INITIAL C=0.35	C=0.054, SE=0.002
6	MAT	225273	INITIAL C=0.90	C=0.303, SE=0.022
7	REA	226891	INITIAL C=0.85	C=0.161, SE=0.033

[1] Initial c-parameter values are established within the block statement by way of the GPARM command. For example, to initialize a starting value to 0.50 the command would be: GPARM= (0.50). The initial starting value does not necessarily reflect what might end up as the final estimate for this parameter.

7	REA	226901	INITIAL C=0.50	C=0.042, SE=0.010
7	REA	226897	INITIAL C=0.35	C=0.059, SE=0.018
7	REA	226900	INITIAL C=0.85	C=0.121, SE=0.019
7	REA	226851	INITIAL C=0.50	C=0.072, SE=0.017
7	REA	226850	INITIAL C=0.45	C=0.049, SE=0.013
7	REA	226855	FIXED C=0.20	C=0.200
7	REA	201640	FIXED C=0.20	C=0.200
7	REA	226864	INITIAL C=0.50	C=0.070, SE=0.019
7	REA	226874	INITIAL C=0.00	C=0.133, SE=0.005
7	REA	226876	FIXED C=0.00	C=0.000
7	REA	199602	INITIAL C=0.85	C=0.150, SE=0.016
7	REA	201554	INITIAL C=0.80	C=0.227, SE=0.048
7	REA	199526	FIXED C=0.25	C=0.250
7	MAT	199904	FIXED C=0.00	C=0.000
7	MAT	224775	FIXED C=0.00	C=0.000
7	MAT	206146	FIXED C=0.00	C=0.000
7	MAT	224793	INITIAL C=0.85	C=0.137, SE=0.027
8	REA	204344	FIXED C=0.25	C=0.250
8	REA	226173	FIXED C=0.20	C=0.200
8	REA	226177	INITIAL C=0.35	C=0.000, SE=0.030
8	REA	226341	INITIAL C=0.00	C=0.037, SE=0.013
8	REA	226329	INITIAL C=0.00	C=0.039, SE=0.016
8	REA	226332	FIXED C=0.20	C=0.200
8	REA	226340	FIXED C=0.15	C=0.150
8	REA	226344	FIXED C=0.10	C=0.100
8	REA	230172	FIXED C=0.25	C=0.250
8	REA	243072	INITIAL C=0.45	C=0.114, SE=0.032
8	REA	233567	INITIAL C=0.35	C=0.136, SE=0.045
8	MAT	206229	INITIAL C=0.45	C=0.325, SE=0.004
8	MAT	206295	INITIAL C=0.10	C=0.142, SE=0.024
8	MAT	224881	INITIAL C=0.65	C=0.186, SE=0.017

Using a delta analysis procedure to evaluate equating items very few items were removed from the equating analysis. With generally only about 1 item being removed for each grade/content these results are what we have found typically occurs. Results from this analysis are included in Section II of this report. Items were also flagged for a variety of other reasons such as: IRT statistical criteria, copy match, or actions taken during IRT calibration. This created our item watch list, which includes final actions taken on these items. The final watch list is presented in Table I.c.3 below.

Table I.c.3
Final Item Watch List

GRADE	CONTENT	IREF	SEQ	FORM	POSITION	OLD FORM	OLD POSITION	SOURCE/FILE	ITEM PARAMETER	ACTION TAKEN
4	MAT	202395	46	2	53	4	55	suspect	Removed from calibration	Removed, not included for equating
4	MAT	224093	92	1, 7	46	1, 7	46	copy-match	a=0.795, b=0.703;	Checked the item physically in the forms; used as an equating item
4	MAT	227082	102	3	69	2	46	delta analysis, (dist=3.165)	a=0.992, b=-1.045	Removed, based on delta analysis
4	REA	225769	39	1	47	6	45	copy-match	a=1.24, b=-0.13, c=0.157	Checked the item physically in the forms; used as an equating item
4	REA	243661	52	2	45	2	45	copy-match	a=0.69, b=-1.19, c=0.12	Checked the item physically in the forms; used as an equating item
4	REA	225776	78	1	46	4	46	delta analysis, (dist=5.314)	a=0.59, b=-0.518	Removed, based on delta analysis
4	REA	225778	79	1	51	4	51	copy-match	a=0.92, b=0.615	Checked the item physically in the forms; used as an equating item
5	MAT	203621	83	1	39	0	63	copy-match	a=0.980, b=0.616	Checked the item physically in the forms; used as an equating item
5	MAT	203621	83	7	39	0	63	copy-match	a=0.980, b=0.616	Checked the item physically in the forms; used as an equating item
5	MAT	203893	67	6	49	0	22	b-b plot	a=0.637,b=-0.907, c=0.182	Checked the model fit; used as an equating item
5	MAT	198603	92	3, 9	61	0	65	delta analysis, (dist=3.740)	a=0.680, b=-0.976	Removed, based on delta analysis
5	REA	226517	85	3	51	4, 6	51	delta analysis, (dist=5.210)	a=1.00, b=0.527	Removed, based on delta analysis
6	MAT	225273	55	4	49	3, 9	50	item_action	a=0.647, b=1.852, c=0.303	Checked the item physically in the forms; used as an equating

GRADE	CONTENT	IREF	SEQ	FORM	POSITION	OLD FORM	OLD POSITION	SOURCE/FILE	ITEM PARAMETER	ACTION TAKEN
										item
6	MAT	198710	56	4	51	4	49	copy-match	a=0.769, b=0.263, c=0.192	Checked the item physically in the forms; used as an equating item
6	MAT	225393	104	6	61	3	39	delta analysis, (dist=3.285)	a=0.938, b=0.808	Removed, based on delta analysis
6	REA	226728	69	3	49	7	49	delta analysis, (dist=3.496)	a=0.78, b=-1.105, c=0.09	Removed, based on delta analysis
7	MAT	224778	24	00	46			suspect	a= 0.059, b=17.56, c=0.0	Initial value for a and b-parameter; c-parameter was fixed to 0.0
7	MAT	199921	44	2, 8	51	0	55	delta analysis, (dist=5.197)	a=0.892, b=-0.471, c=0.161	Removed, based on delta analysis
7	MAT	224775	47	03	26			suspect	a=0.069, b=7.974, c=0.0	C-parameter was fixed to 0.0
7	REA	201554	45	2	20	2	20	item_action	a=0.507,b=-0.70, c=0.227	Checked the item-content and used
7	REA	201645	58	3	19	3	19	delta analysis, (dist=3.189)	a=0.448, b=-0.167, c=0.09	Removed, based on delta analysis
8	MAT	206223	21	00	35			suspect	a=0.912, b=0.444, c=0.505	Checked the item-content and used
8	MAT	206225	51	4	7	2, 8	49	delta analysis, (dist=3.731)	a=1.048, b=1.430, c=0.335	Removed, based on delta analysis

Note. (dist =) represents standardized perpendicular distance in delta analysis.

SECTION I.D

NECAP
Summary of Psychometric QC Activities

NECAP
Summary of Psychometric QC Activities

1) Copy match of equating items
2) Key verification process
3) Delta analysis
    a. Crit > 3 removed
4) Equating Analysis
    a. Reasonableness of item parameters
    b. Low a, high SE on B, c parameter not fully estimated
    c. Fit files
    d. Normal end evaluation – over 48 executable programs were run
    e. Delta plot
    f. *a*-plot, *b*-plots
    g. TCCs
    h. Proficiency levels and scaled score distributions
    i. Comparisons made with STUIRT
5) Watch List – items were continuously evaluated
    a. 8 criteria
    b. Statistical values
    c. Content
6) Parallel processing of SS calculation

SECTION I.E

NECAP

EQUATING TRANSFORMATION CONSTANTS

Table I.e.1
Stocking and Lord Transformation Constants

Grade	Subject	A	B
3	Math	0.994445	0.058005
4	Math	1.030494	-0.117196
5	Math	1.016132	0.042294
6	Math	1.073329	0.051652
7	Math	1.021552	0.073947
8	Math	0.987710	0.030454
3	Reading	1.004445	-0.044511
4	Reading	1.049324	0.087669
5	Reading	1.010529	-0.013614
6	Reading	1.081190	-0.092937
7	Reading	1.056343	-0.145053
8	Reading	1.085364	-0.217158

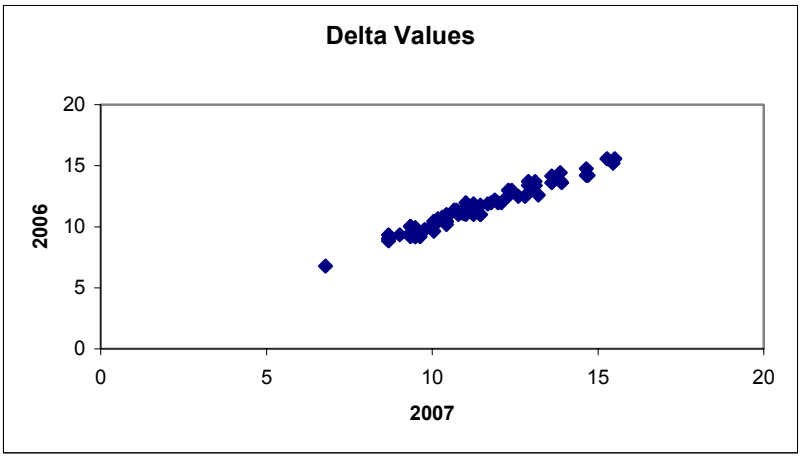
SECTION II.A

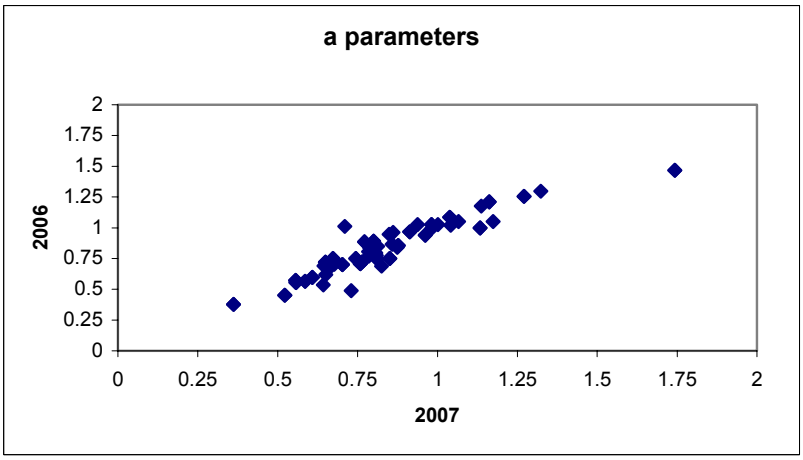
NECAP

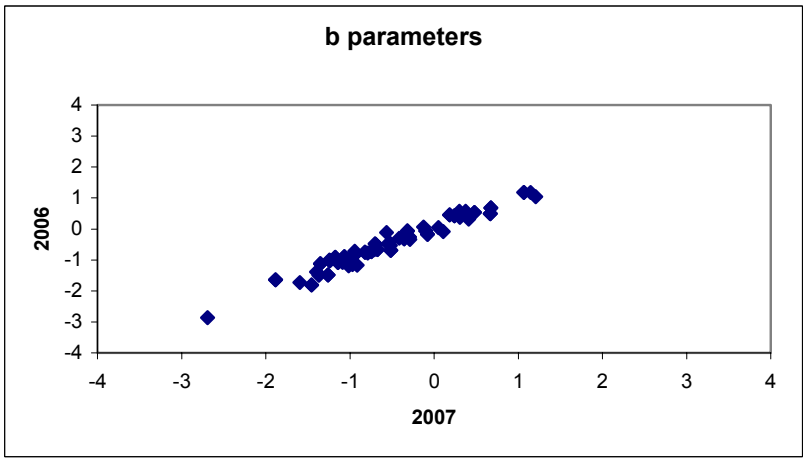
RESULTS FOR EACH GRADE CONTENT

Math Grade 03

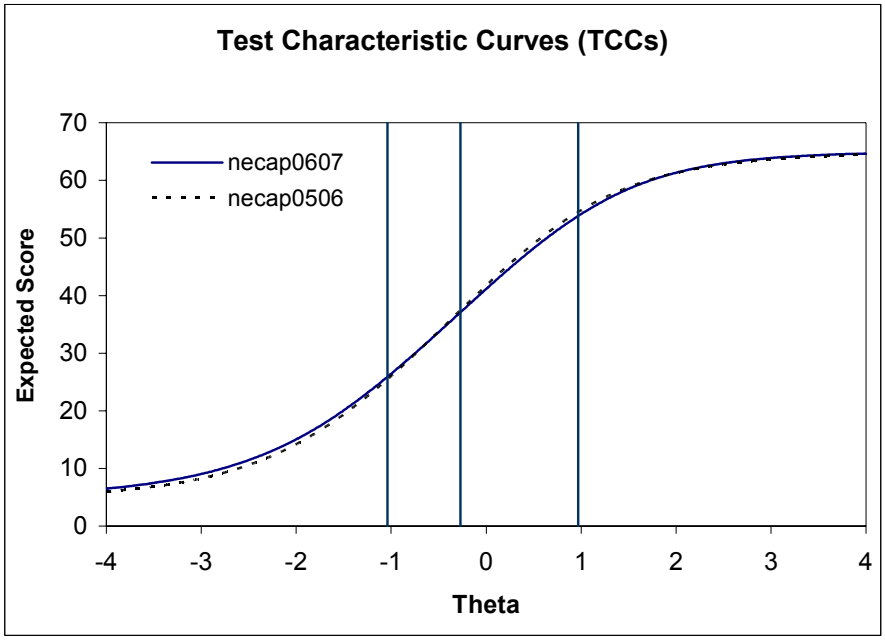
Equating Item Evaluation

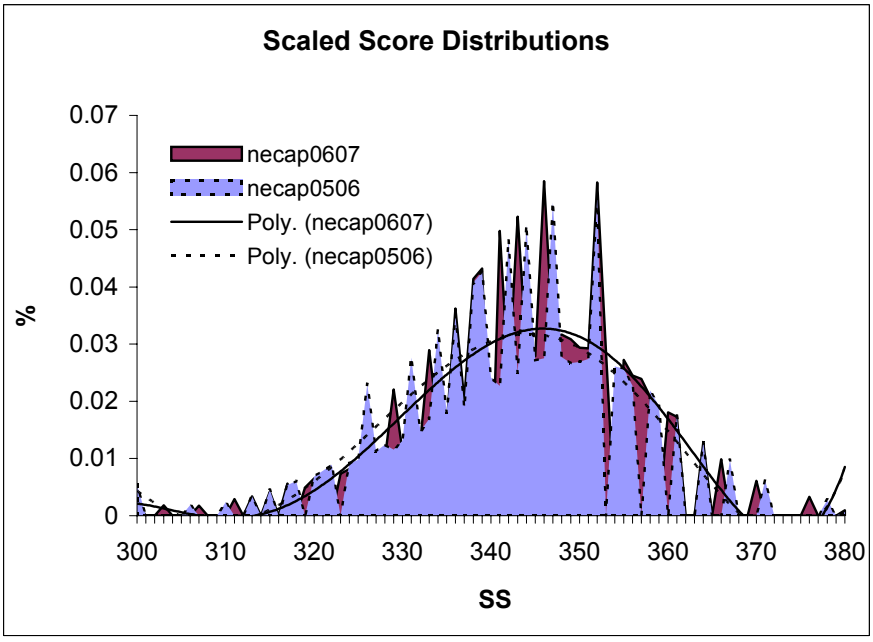






Math Grade 03





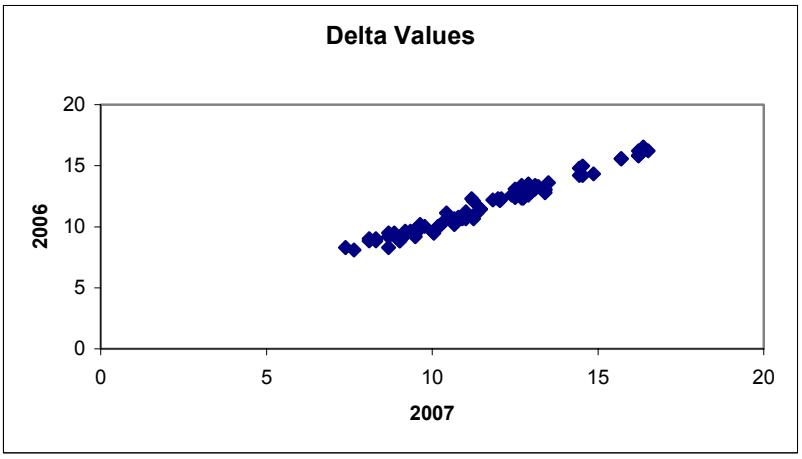
NECAP Math Grade 03

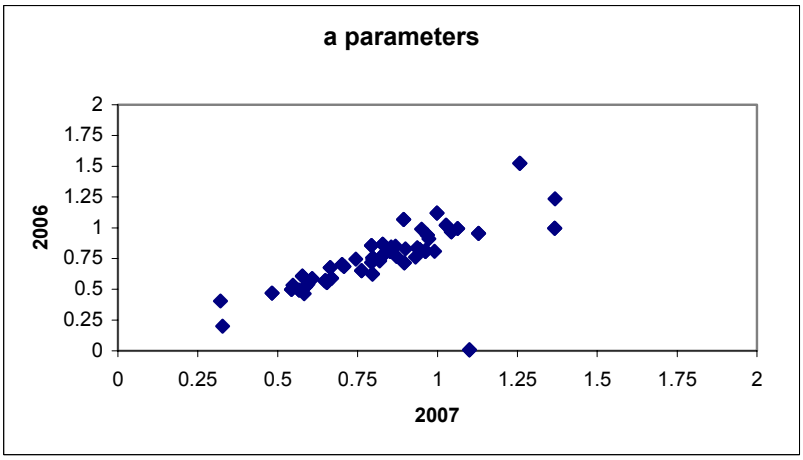
2007		2006	
SS	RS	SS	RS
300	0	300	0
300	1	300	1
300	2	300	2
300	3	300	3
300	4	300	4
300	5	300	5
300	6	300	6
303	7	306	7
307	8	310	8
311	9	313	9
313	10	315	10
315	11	317	11
317	12	318	12
319	13	320	13
320	14	321	14
321	15	322	15
323	16	324	16
324	17	325	17
325	18	326	18
326	19	326	19
327	20	327	20
328	21	328	21
329	22	329	22
329	23	330	23
330	24	331	24
331	25	331	25
332	26	332	26
333	27	333	27
333	28	334	28
334	29	334	29
335	30	335	30
336	31	336	31
336	32	336	32
337	33	337	33
338	34	338	34
338	35	338	35
339	36	339	36
339	37	339	37
341	38	340	38
341	39	341	39
342	40	342	40
343	41	342	41
343	42	343	42
344	43	344	43
345	44	344	44
346	45	345	45
346	46	346	46
347	47	347	47

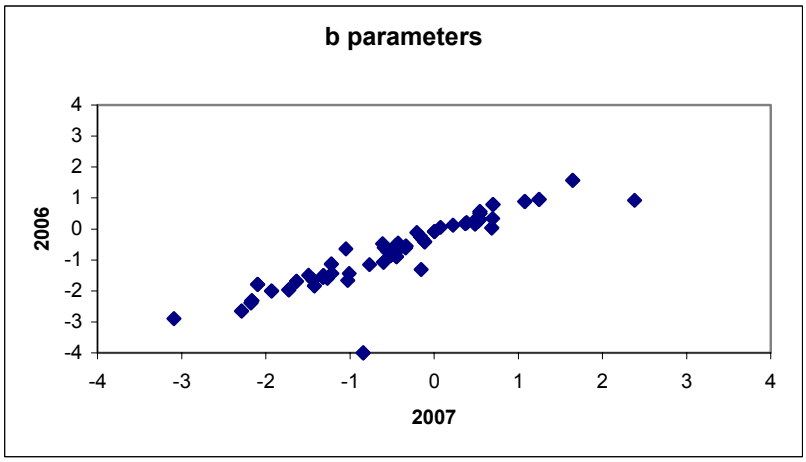
2007		2006	
SS	RS	SS	RS
348	48	347	48
349	49	348	49
350	50	349	50
351	51	350	51
352	52	351	52
352	53	352	53
353	54	352	54
355	55	354	55
356	56	355	56
357	57	356	57
358	58	358	58
360	59	359	59
361	60	361	60
364	61	364	61
366	62	367	62
370	63	371	63
376	64	378	64
380	65	380	65

Math Grade 04

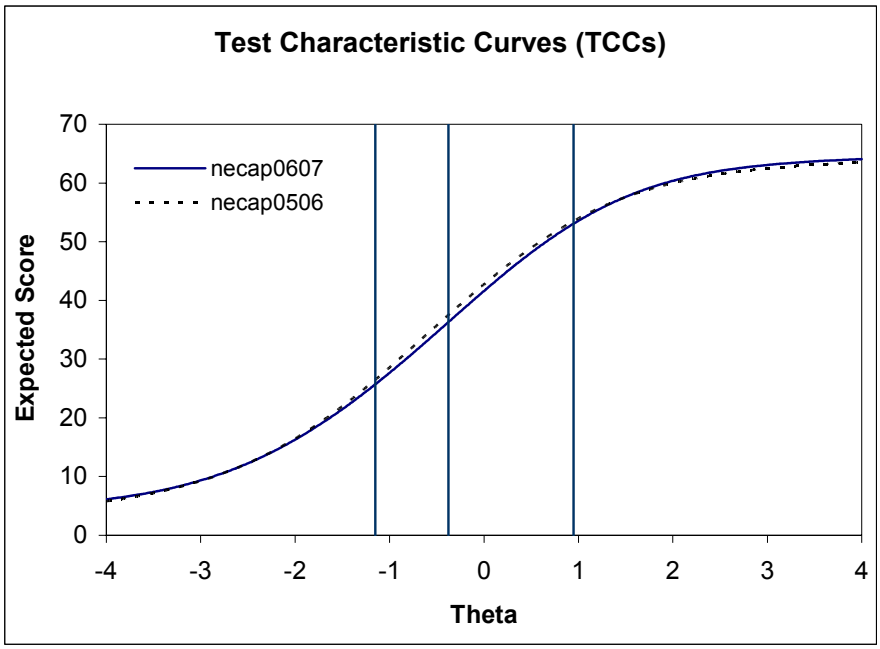
Equating Item Evaluation

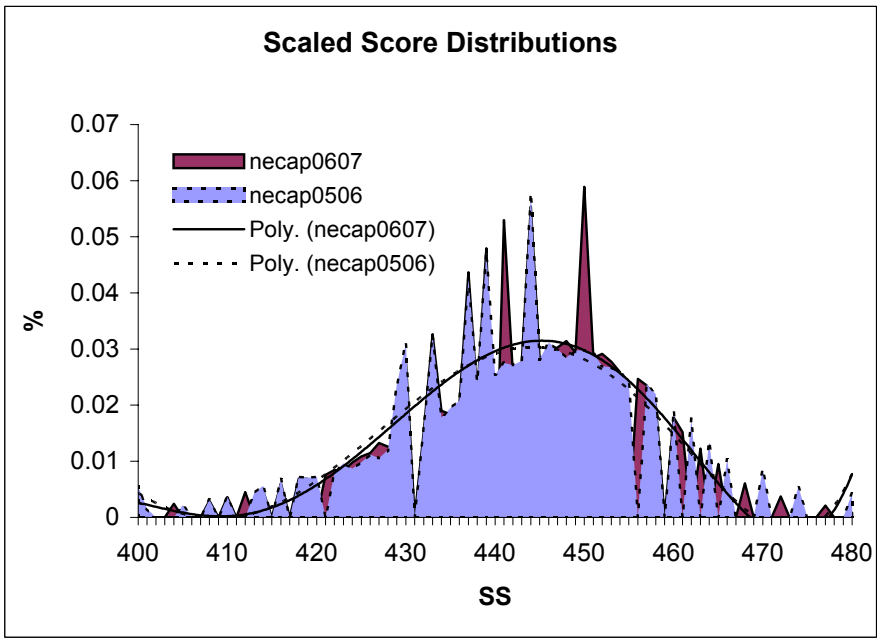






Math Grade 04





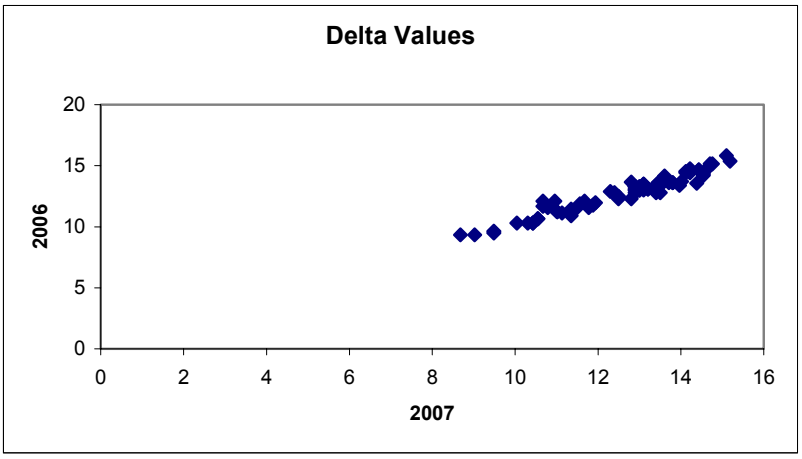
NECAP Math Grade 04

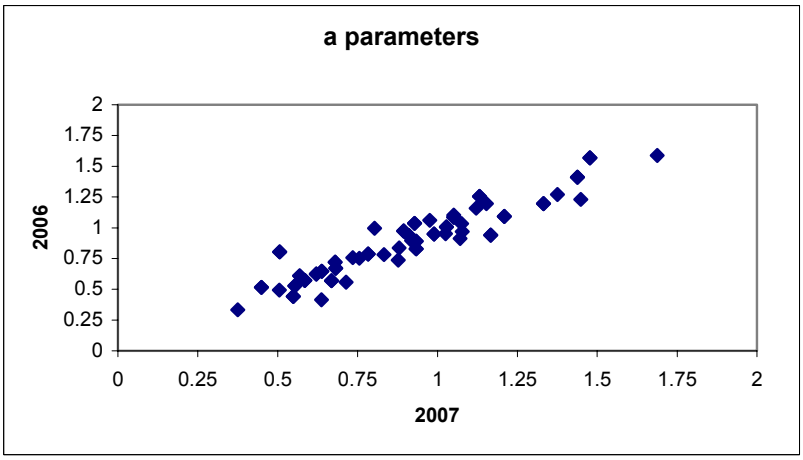
2007		2006	
SS	RS	SS	RS
400	0	400	0
400	1	400	1
400	2	400	2
400	3	400	3
400	4	400	4
400	5	400	5
400	6	401	6
404	7	405	7
408	8	408	8
410	9	410	9
412	10	413	10
414	11	414	11
416	12	416	12
418	13	418	13
419	14	419	14
421	15	420	15
422	16	422	16
423	17	423	17
424	18	424	18
425	19	425	19
426	20	426	20
427	21	427	21
428	22	428	22
429	23	429	23
430	24	429	24
430	25	430	25
432	26	430	26
433	27	432	27
433	28	433	28
434	29	433	29
435	30	434	30
436	31	435	31
437	32	436	32
437	33	437	33
438	34	437	34
439	35	438	35
439	36	439	36
441	37	439	37
441	38	440	38
442	39	441	39
443	40	442	40
444	41	443	41
444	42	444	42
445	43	444	43
446	44	445	44
447	45	446	45
448	46	447	46
449	47	448	47

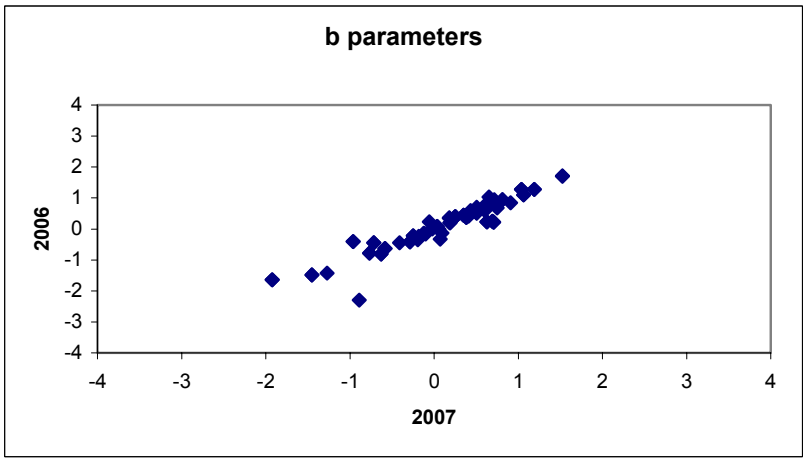
2007		2006	
SS	RS	SS	RS
450	48	449	48
450	49	450	49
451	50	451	50
452	51	452	51
453	52	453	52
454	53	454	53
456	54	455	54
457	55	457	55
458	56	458	56
460	57	460	57
461	58	462	58
463	59	464	59
465	60	466	60
468	61	470	61
472	62	474	62
477	63	480	63
480	64	480	64
480	65	480	65

Math Grade 05

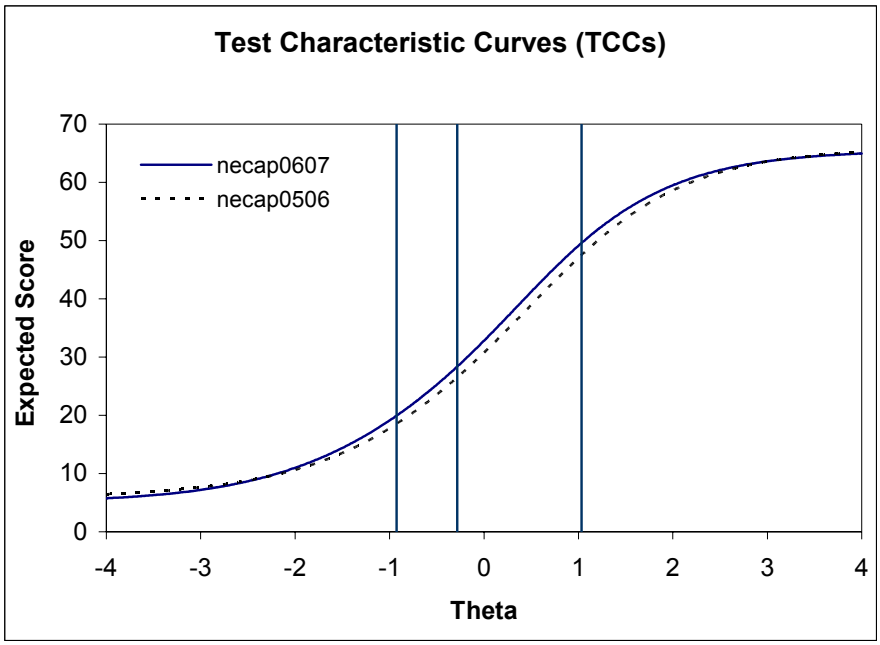
Equating Item Evaluation

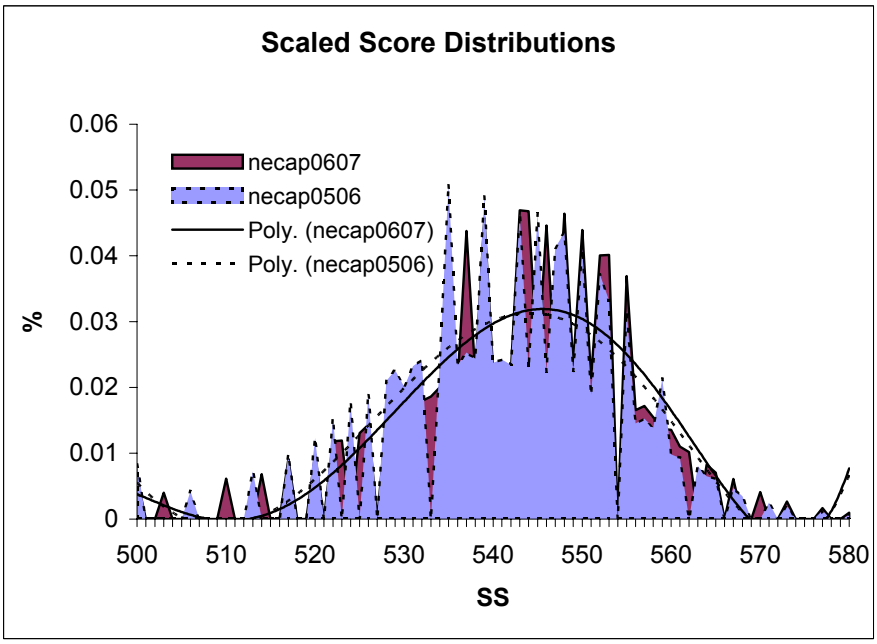






Math Grade 05





NECAP Math Grade 05

2007		2006	
SS	RS	SS	RS
500	0	500	0
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500	2	500	2
500	3	500	3
500	4	500	4
500	5	500	5
503	6	500	6
510	7	506	7
514	8	513	8
517	9	517	9
520	10	520	10
522	11	522	11
523	12	524	12
525	13	526	13
526	14	528	14
528	15	529	15
529	16	530	16
530	17	531	17
531	18	532	18
532	19	534	19
533	20	535	20
534	21	535	21
535	22	536	22
536	23	537	23
537	24	538	24
537	25	539	25
538	26	539	26
539	27	540	27
539	28	541	28
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541	30	543	30
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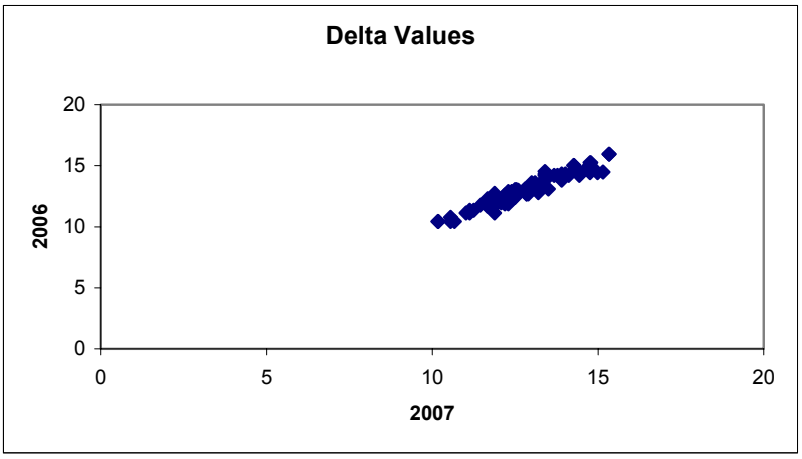
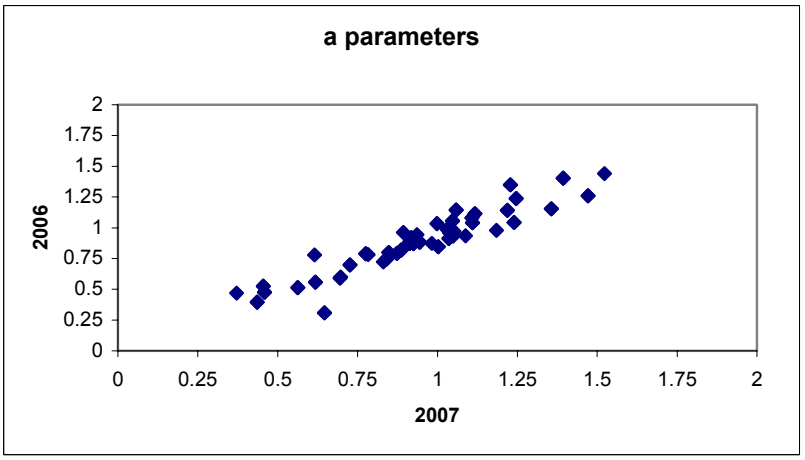
544	34	545	34
544	35	546	35
545	36	547	36
546	37	547	37
546	38	548	38
547	39	548	39
548	40	549	40
548	41	550	41
549	42	550	42
550	43	551	43
550	44	552	44
551	45	552	45
552	46	553	46
552	47	553	47

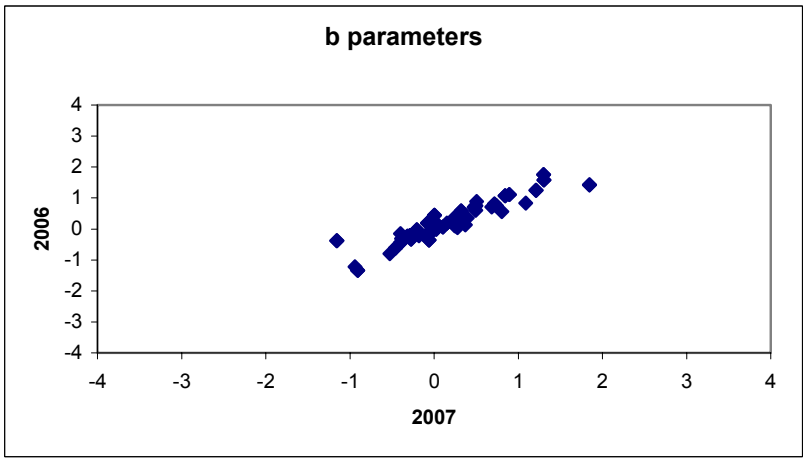
2007		2006	
SS	RS	SS	RS
553	48	555	48
553	49	555	49
555	50	556	50
555	51	557	51
556	52	558	52
557	53	559	53
558	54	559	54
559	55	560	55
560	56	561	56
561	57	563	57
562	58	564	58
564	59	565	59
565	60	567	60
567	61	568	61
570	62	571	62
573	63	573	63
577	64	577	64
580	65	580	65
580	66	580	66

Math Grade 06

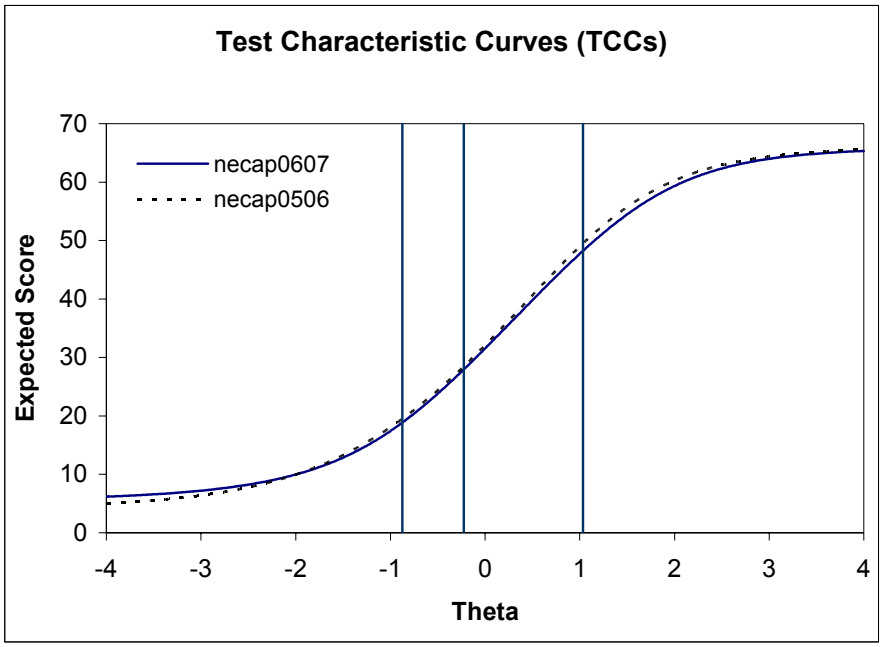
Equating Item Evaluation

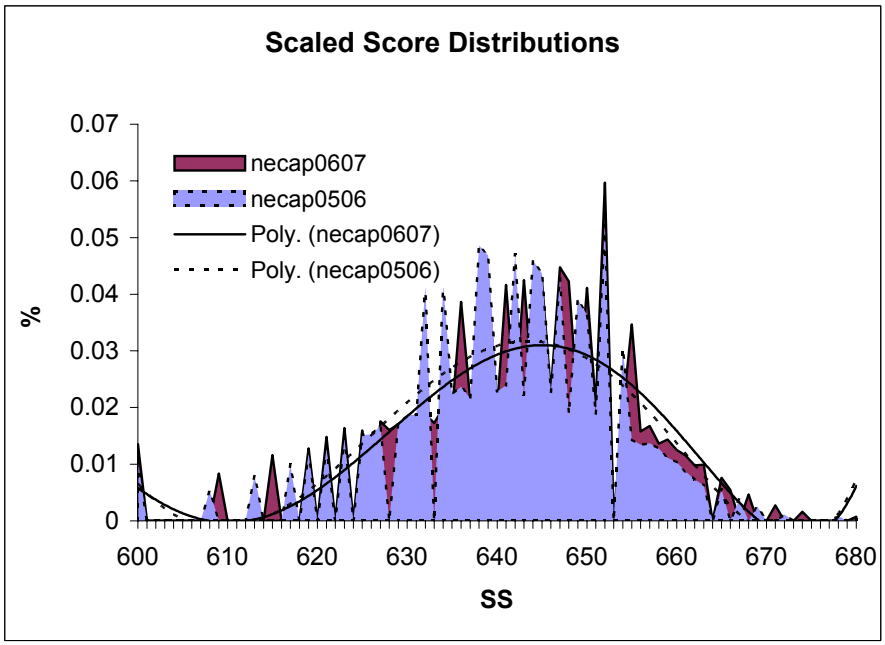






Math Grade 06





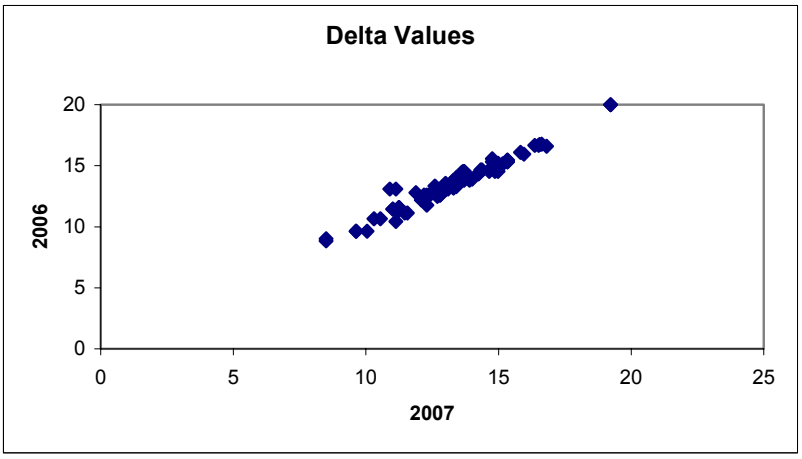
NECAP Math Grade 06

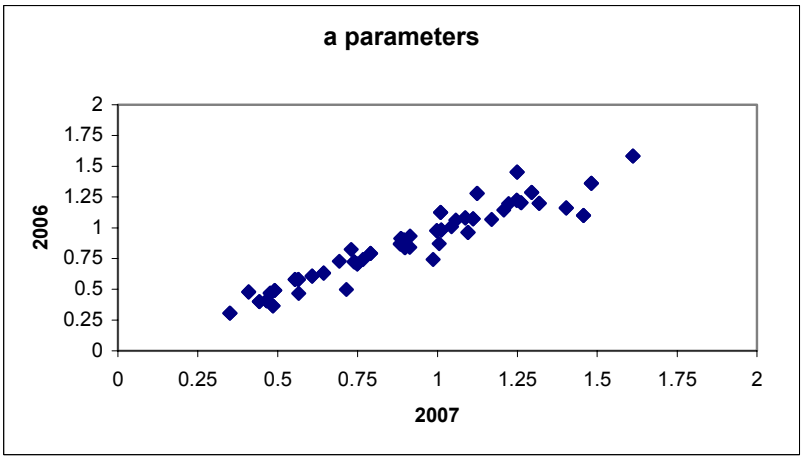
2007		2006	
SS	RS	SS	RS
600	0	600	0
600	1	600	1
600	2	600	2
600	3	600	3
600	4	600	4
600	5	600	5
600	6	608	6
609	7	613	7
615	8	617	8
619	9	619	9
621	10	621	10
623	11	623	11
625	12	625	12
627	13	626	13
628	14	627	14
629	15	629	15
630	16	630	16
631	17	631	17
632	18	632	18
633	19	632	19
634	20	634	20
635	21	634	21
636	22	635	22
636	23	636	23
637	24	637	24
638	25	638	25
639	26	638	26
639	27	639	27
640	28	639	28
641	29	640	29
641	30	641	30
642	31	642	31
643	32	642	32
643	33	643	33
644	34	644	34
645	35	644	35
645	36	645	36
646	37	645	37
647	38	646	38
647	39	647	39
648	40	647	40
648	41	648	41
649	42	649	42
650	43	649	43
650	44	650	44
651	45	650	45
652	46	651	46
652	47	652	47

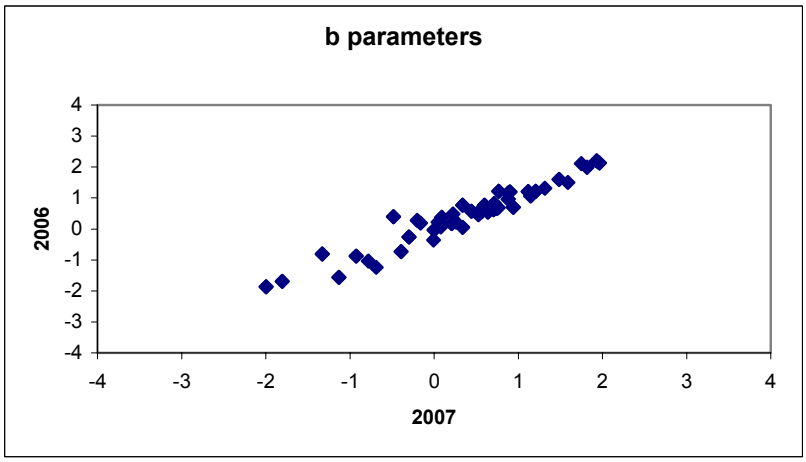
2007		2006	
SS	RS	SS	RS
652	48	652	48
654	49	652	49
655	50	654	50
655	51	654	51
656	52	655	52
657	53	656	53
658	54	657	54
659	55	658	55
660	56	659	56
661	57	660	57
662	58	661	58
663	59	662	59
665	60	663	60
666	61	665	61
668	62	667	62
671	63	669	63
674	64	672	64
680	65	678	65
680	66	680	66

Math Grade 07

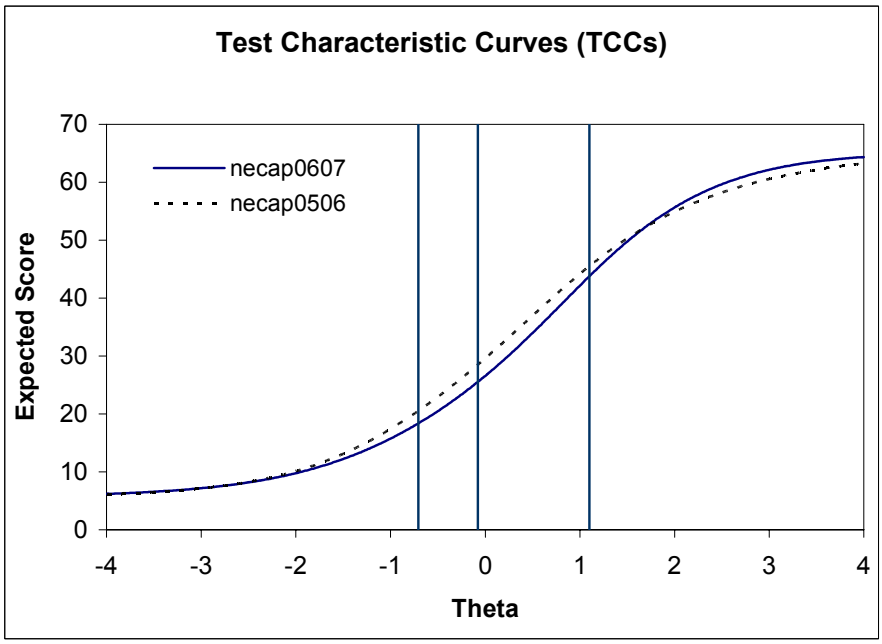
Equating Item Evaluation

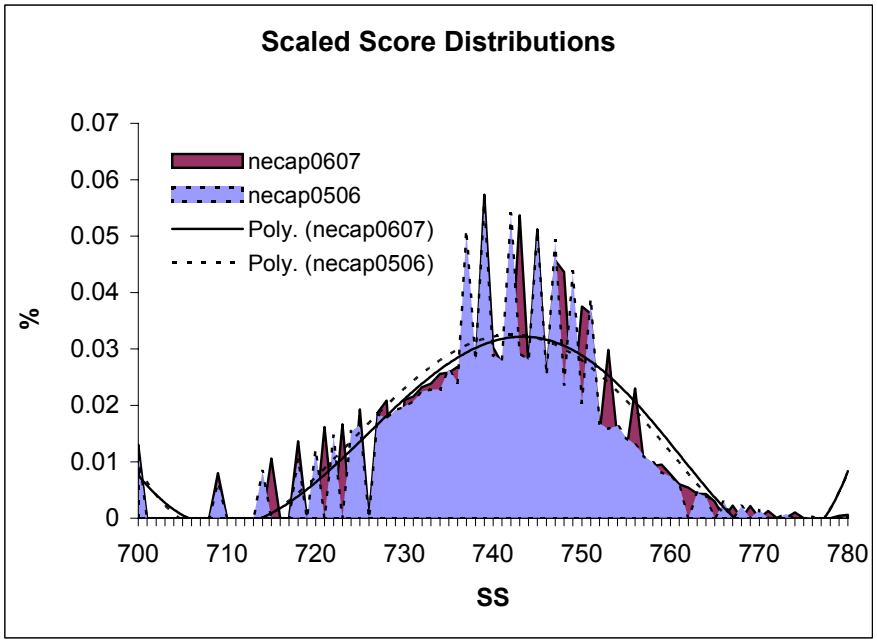






Math Grade 07





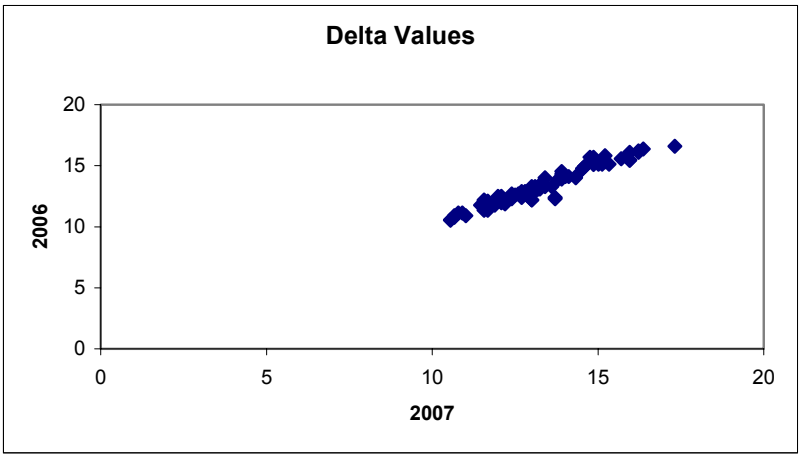
NECAP Math Grade 07

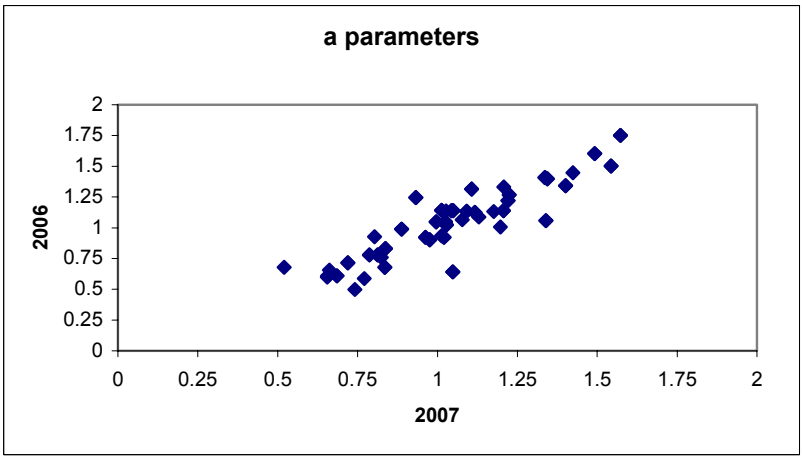
2007		2006	
SS	RS	SS	RS
700	0	700	0
700	1	700	1
700	2	700	2
700	3	700	3
700	4	700	4
700	5	700	5
700	6	700	6
709	7	709	7
715	8	714	8
718	9	718	9
721	10	720	10
723	11	722	11
725	12	724	12
727	13	725	13
728	14	727	14
730	15	728	15
731	16	729	16
732	17	730	17
733	18	731	18
734	19	732	19
735	20	733	20
736	21	734	21
737	22	735	22
738	23	736	23
739	24	737	24
739	25	737	25
740	26	738	26
741	27	739	27
742	28	739	28
743	29	740	29
743	30	741	30
744	31	742	31
745	32	742	32
745	33	743	33
746	34	744	34
747	35	745	35
747	36	745	36
748	37	746	37
748	38	747	38
749	39	747	39
750	40	748	40
750	41	749	41
751	42	749	42
751	43	750	43
752	44	751	44
753	45	751	45
753	46	752	46
754	47	753	47

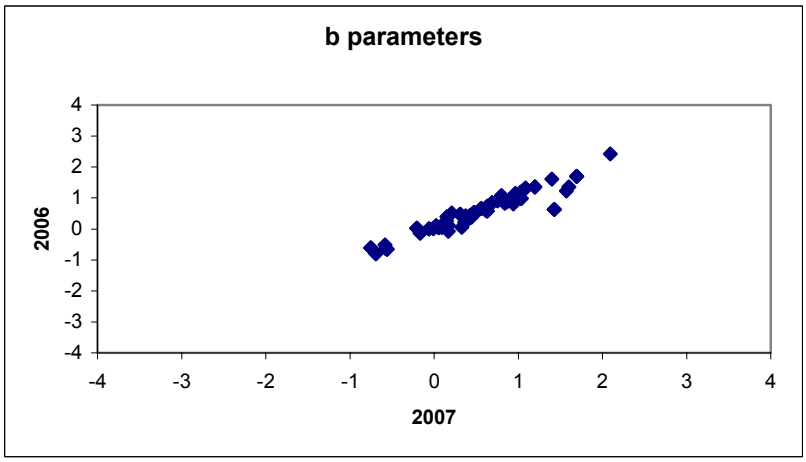
2007		2006	
SS	RS	SS	RS
755	48	754	48
756	49	755	49
756	50	756	50
757	51	757	51
758	52	758	52
759	53	759	53
760	54	760	54
761	55	761	55
762	56	763	56
763	57	764	57
764	58	766	58
765	59	768	59
767	60	770	60
769	61	773	61
771	62	776	62
774	63	780	63
779	64	780	64
780	65	780	65
780	66	780	66

Math Grade 08

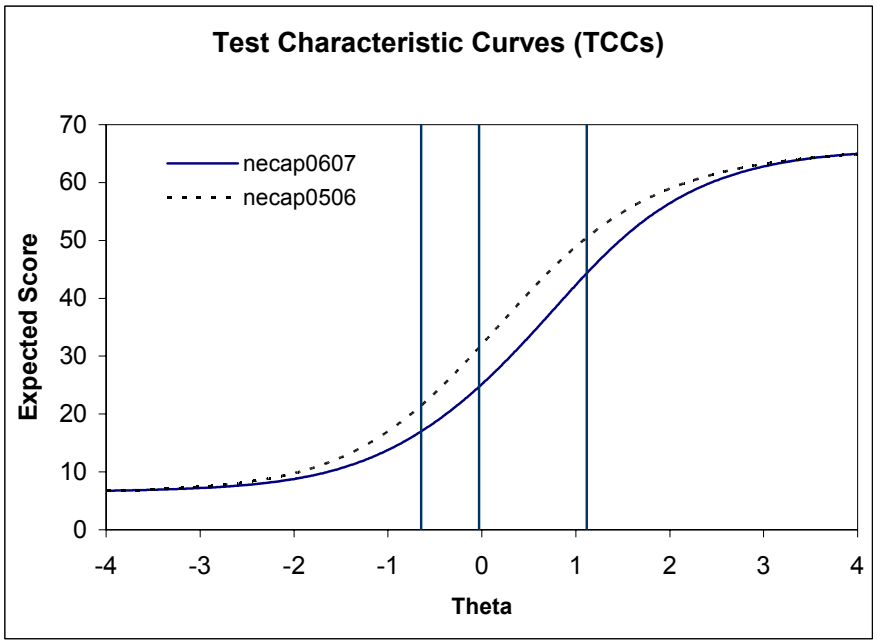
Equating Item Evaluation

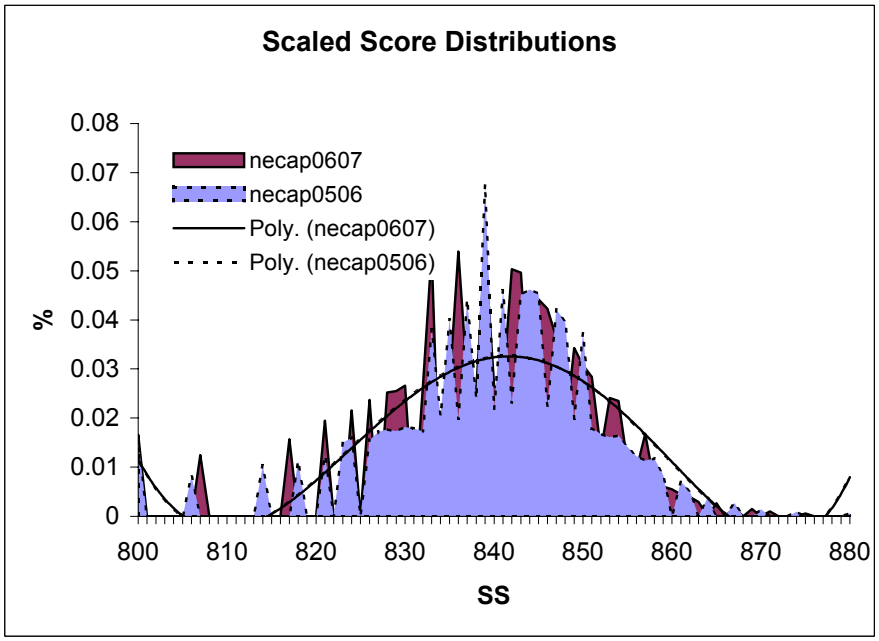






Math Grade 08





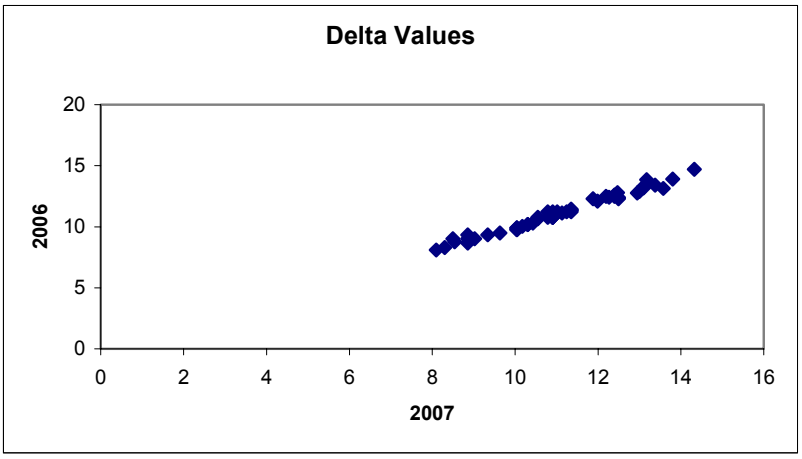
NECAP Math Grade 08

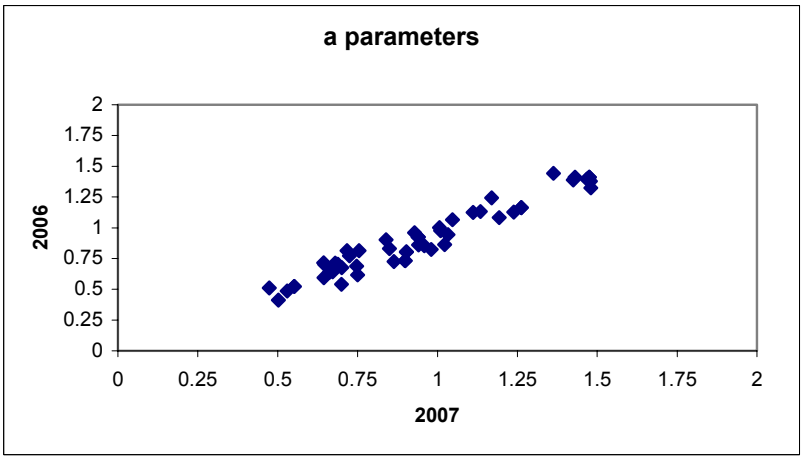
2007		2006	
SS	RS	SS	RS
800	0	800	0
800	1	800	1
800	2	800	2
800	3	800	3
800	4	800	4
800	5	800	5
800	6	800	6
807	7	806	7
817	8	814	8
821	9	818	9
824	10	821	10
826	11	823	11
828	12	824	12
829	13	826	13
830	14	827	14
832	15	828	15
833	16	829	16
833	17	830	17
835	18	831	18
836	19	832	19
836	20	833	20
837	21	833	21
838	22	834	22
839	23	835	23
839	24	835	24
840	25	836	25
841	26	837	26
842	27	837	27
842	28	838	28
843	29	839	29
843	30	839	30
844	31	839	31
845	32	840	32
845	33	841	33
846	34	841	34
846	35	842	35
847	36	843	36
847	37	843	37
848	38	844	38
849	39	844	39
849	40	845	40
850	41	845	41
850	42	846	42
851	43	847	43
851	44	847	44
852	45	848	45
853	46	848	46
853	47	849	47

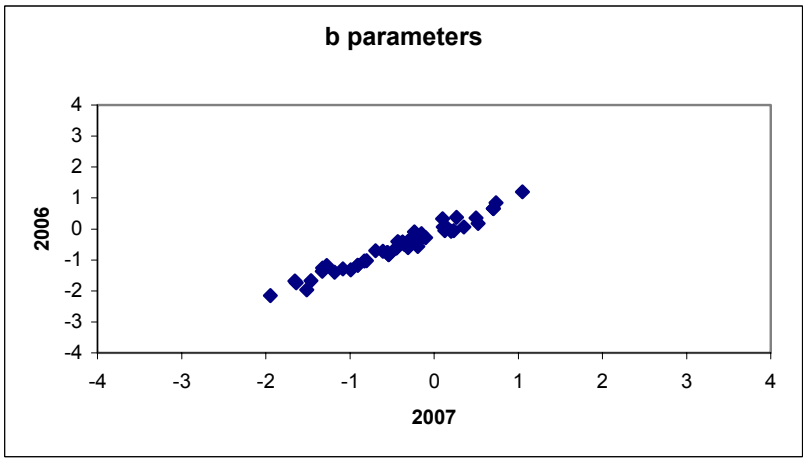
2007		2006	
SS	RS	SS	RS
854	48	850	48
854	49	850	49
855	50	851	50
856	51	852	51
857	52	853	52
857	53	854	53
858	54	855	54
859	55	856	55
860	56	857	56
861	57	858	57
862	58	859	58
863	59	861	59
865	60	862	60
867	61	864	61
869	62	867	62
871	63	870	63
875	64	874	64
880	65	880	65
880	66	880	66

Reading Grade 03

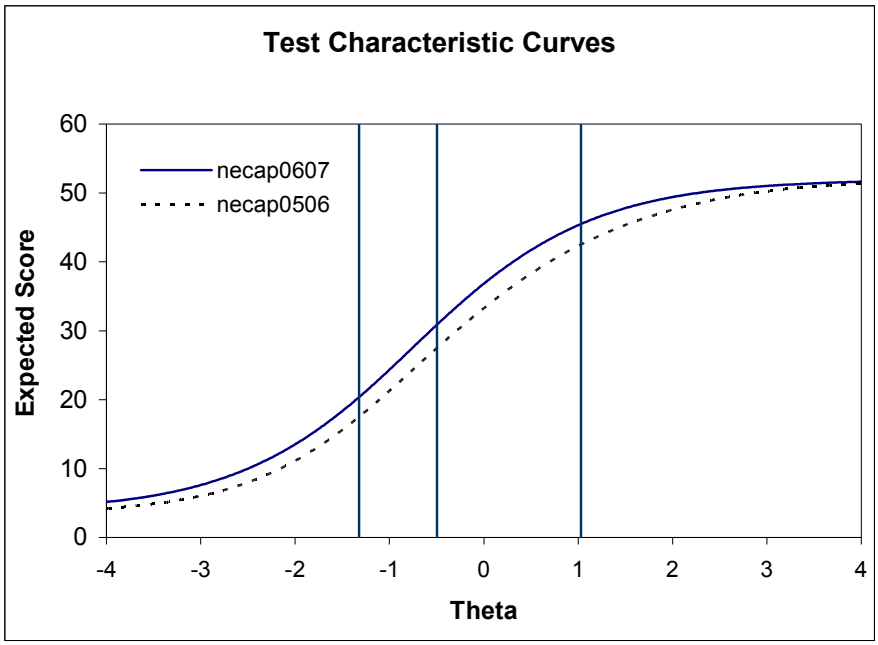
Equating Item Evaluation

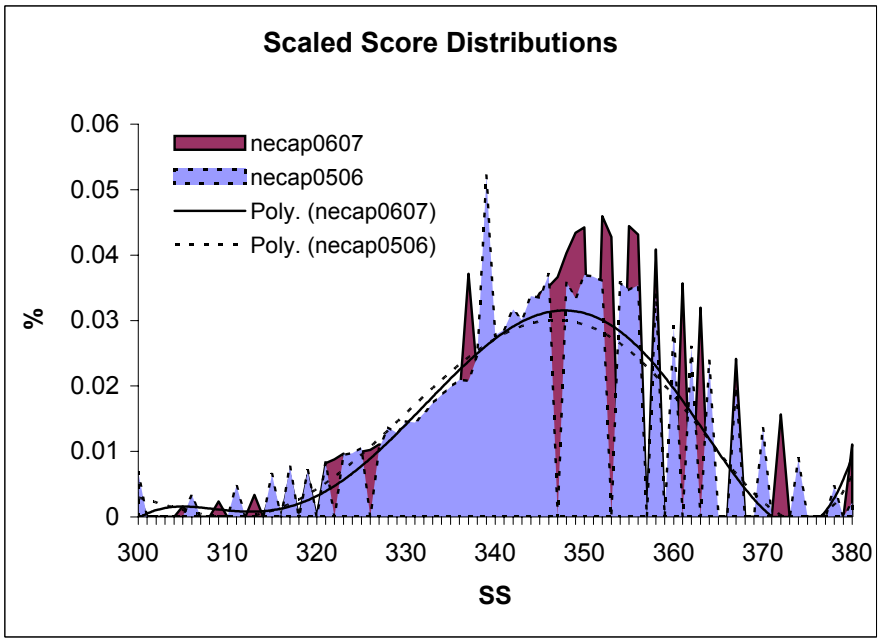






Reading Grade 03





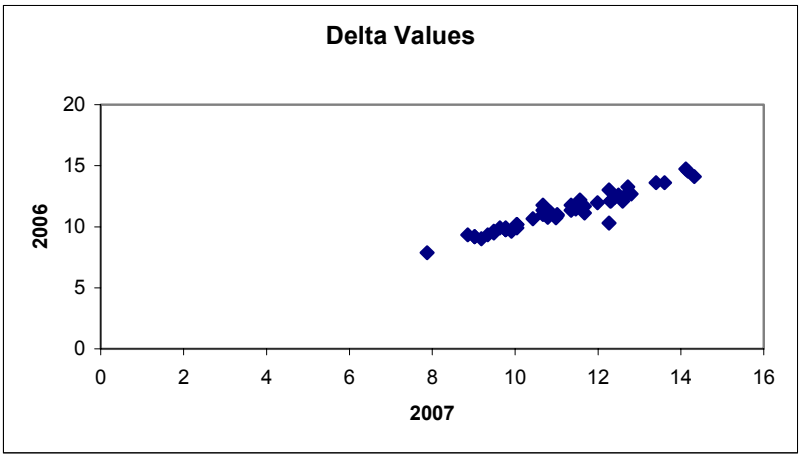
NECAP Reading Grade 03

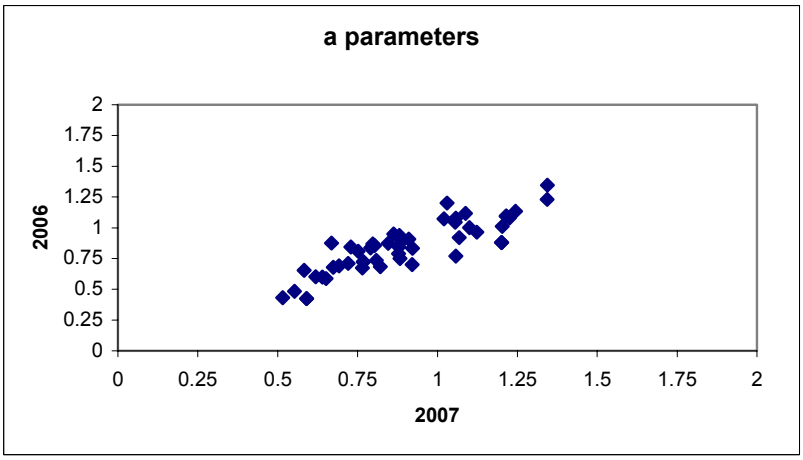
2007		2006	
SS	RS	SS	RS
300	0	300	0
300	1	300	1
300	2	300	2
300	3	300	3
300	4	300	4
300	5	306	5
305	6	311	6
309	7	315	7
313	8	317	8
315	9	319	9
317	10	321	10
319	11	323	11
321	12	324	12
322	13	325	13
323	14	327	14
325	15	328	15
326	16	329	16
327	17	330	17
328	18	331	18
329	19	332	19
330	20	333	20
331	21	334	21
332	22	335	22
333	23	336	23
334	24	337	24
335	25	338	25
336	26	339	26
337	27	339	27
337	28	340	28
338	29	341	29
339	30	342	30
340	31	343	31
341	32	344	32
342	33	345	33
343	34	346	34
344	35	348	35
345	36	349	36
346	37	350	37
347	38	351	38
348	39	352	39
349	40	354	40
350	41	355	41
352	42	356	42
353	43	358	43
355	44	360	44
356	45	362	45
358	46	364	46
361	47	367	47

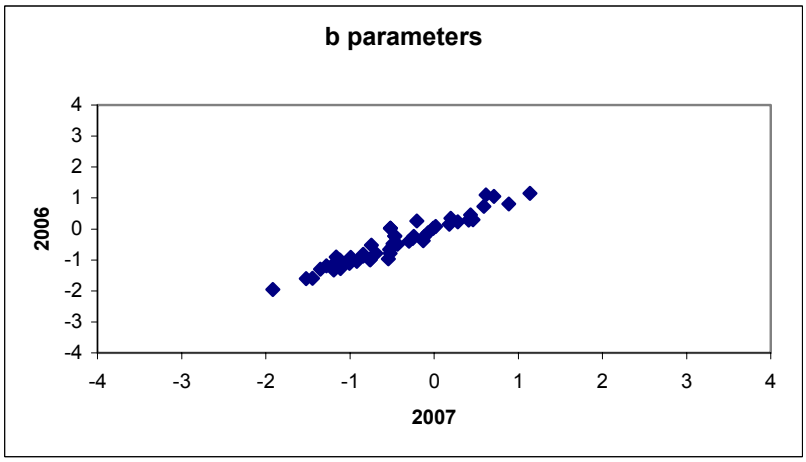
2007		2006	
SS	RS	SS	RS
363	48	370	48
367	49	374	49
372	50	378	50
380	51	380	51
380	52	380	52

Reading Grade 04

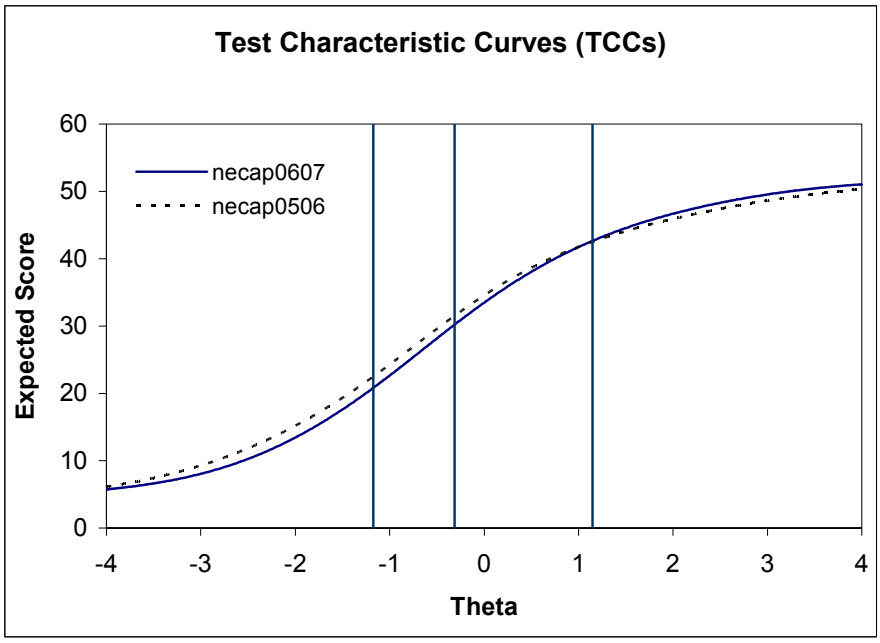
Equating Item Evaluation

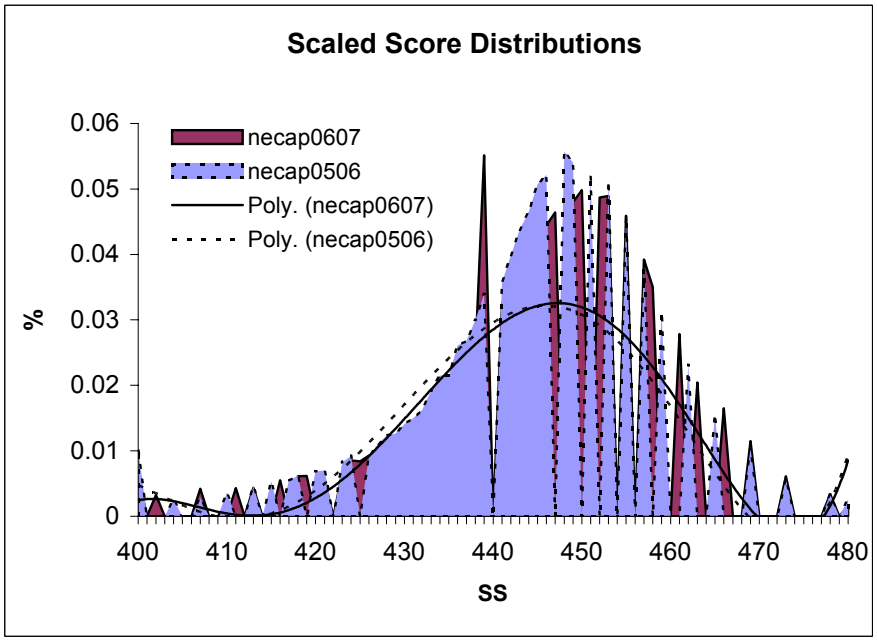






Reading Grade 04





NECAP Reading Grade 04

2007		2006	
SS	RS	SS	RS
400	0	400	0
400	1	400	1
400	2	400	2
400	3	400	3
400	4	400	4
400	5	400	5
402	6	400	6
407	7	404	7
411	8	407	8
413	9	410	9
416	10	413	10
418	11	415	11
419	12	417	12
421	13	418	13
423	14	420	14
424	15	421	15
425	16	423	16
426	17	424	17
428	18	426	18
429	19	427	19
430	20	428	20
431	21	429	21
432	22	430	22
433	23	431	23
434	24	432	24
435	25	433	25
436	26	434	26
437	27	435	27
438	28	436	28
439	29	437	29
439	30	438	30
441	31	439	31
442	32	441	32
443	33	442	33
444	34	443	34
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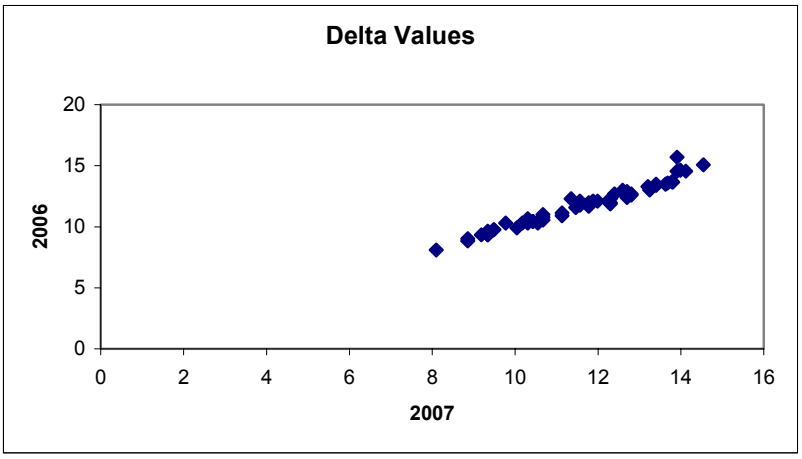
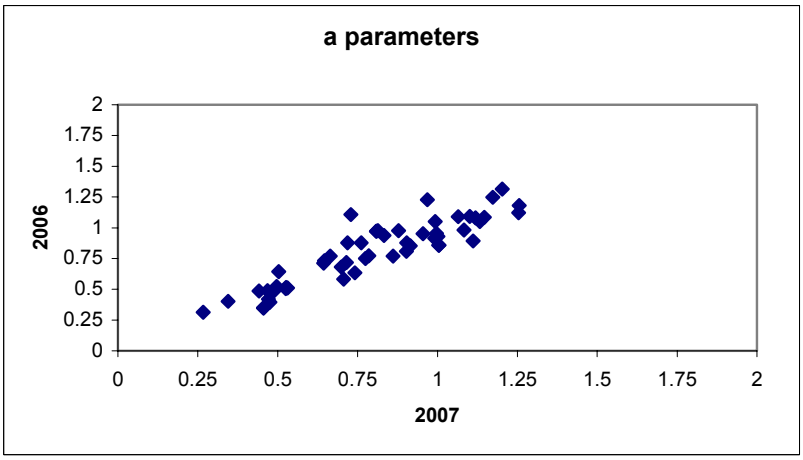
446	36	445	36
447	37	446	37
449	38	448	38
450	39	449	39
452	40	451	40
453	41	453	41
455	42	455	42
457	43	457	43
458	44	459	44
461	45	462	45
463	46	465	46
466	47	469	47

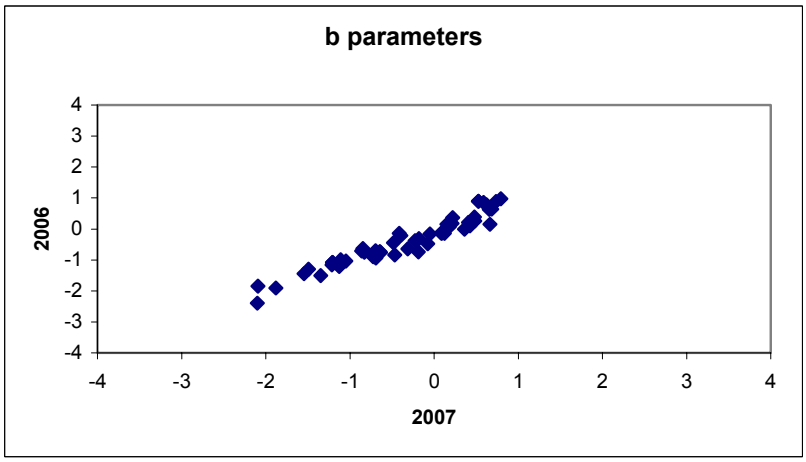
2007		2006	
SS	RS	SS	RS
469	48	473	48
473	49	478	49
478	50	480	50
480	51	480	51
480	52	480	52

Reading Grade 05

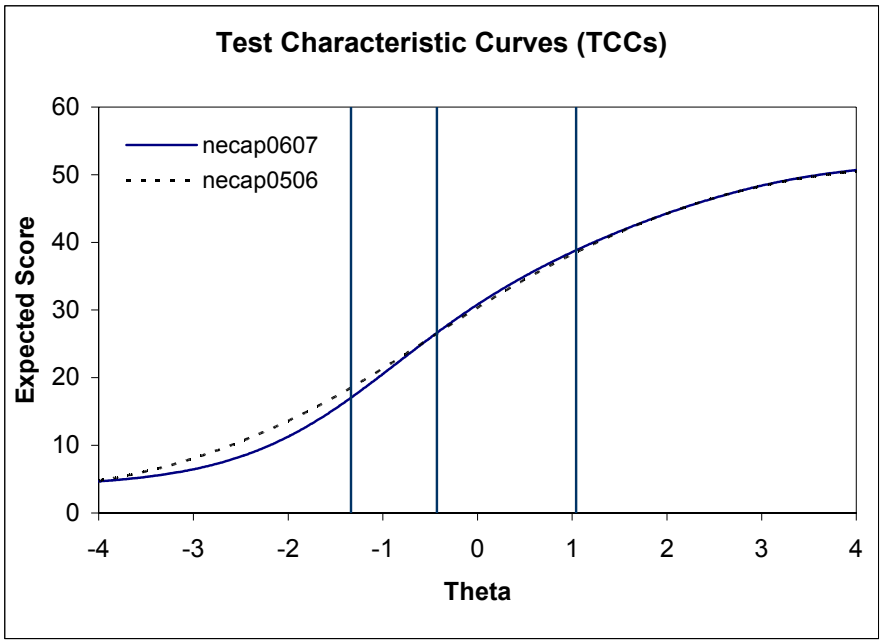
Equating Item Evaluation

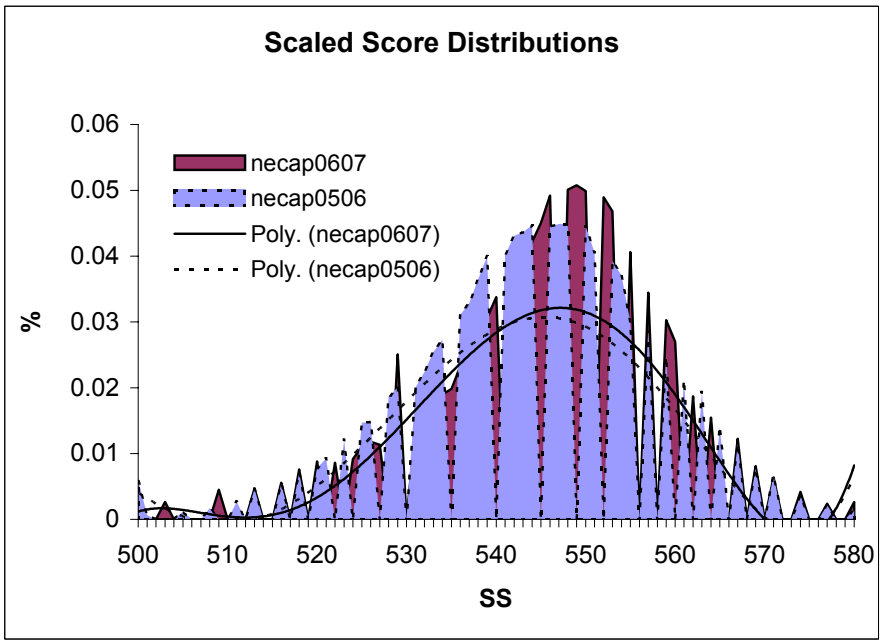






Reading Grade 05





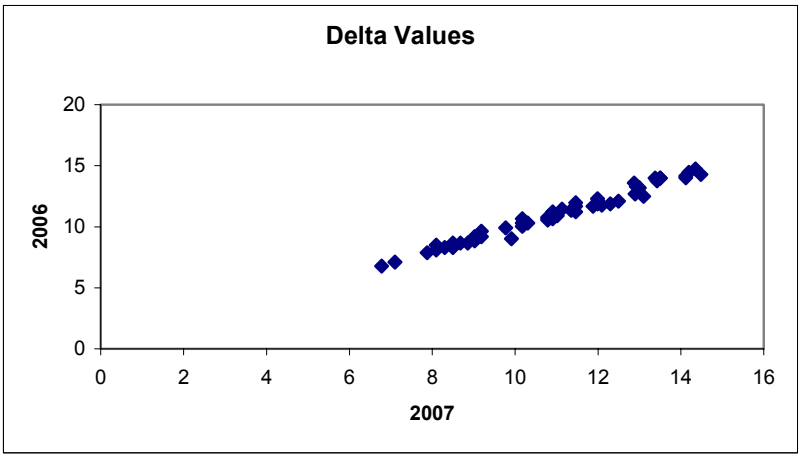
NECAP Reading Grade 05

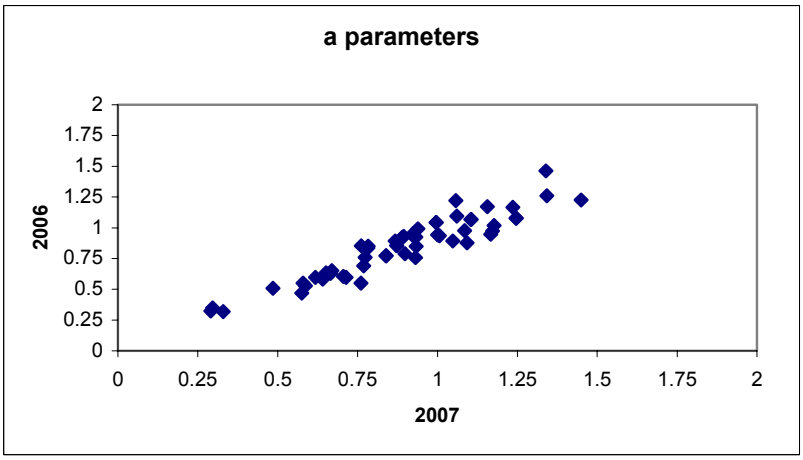
2007		2006	
SS	RS	SS	RS
500	0	500	0
500	1	500	1
500	2	500	2
500	3	500	3
500	4	500	4
503	5	501	5
509	6	505	6
513	7	508	7
516	8	511	8
518	9	513	9
520	10	516	10
522	11	518	11
524	12	520	12
525	13	521	13
526	14	523	14
527	15	525	15
529	16	526	16
529	17	528	17
531	18	529	18
532	19	531	19
533	20	532	20
534	21	533	21
535	22	534	22
536	23	536	23
537	24	537	24
538	25	538	25
539	26	539	26
540	27	541	27
542	28	542	28
543	29	543	29
544	30	544	30
545	31	546	31
546	32	547	32
548	33	548	33
549	34	550	34
550	35	551	35
552	36	553	36
553	37	554	37
555	38	555	38
557	39	557	39
559	40	559	40
560	41	561	41
562	42	563	42
564	43	565	43
567	44	567	44
569	45	569	45
571	46	571	46
574	47	574	47

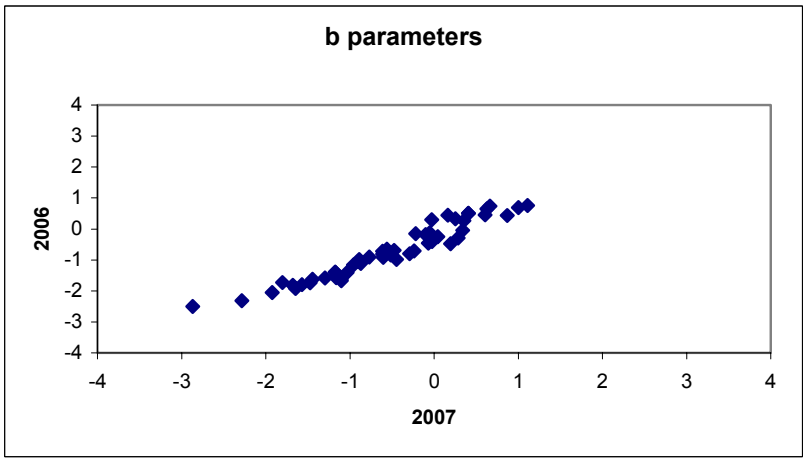
2007		2006	
SS	RS	SS	RS
577	48	577	48
580	49	580	49
580	50	580	50
580	51	580	51
580	52	580	52

Reading Grade 06

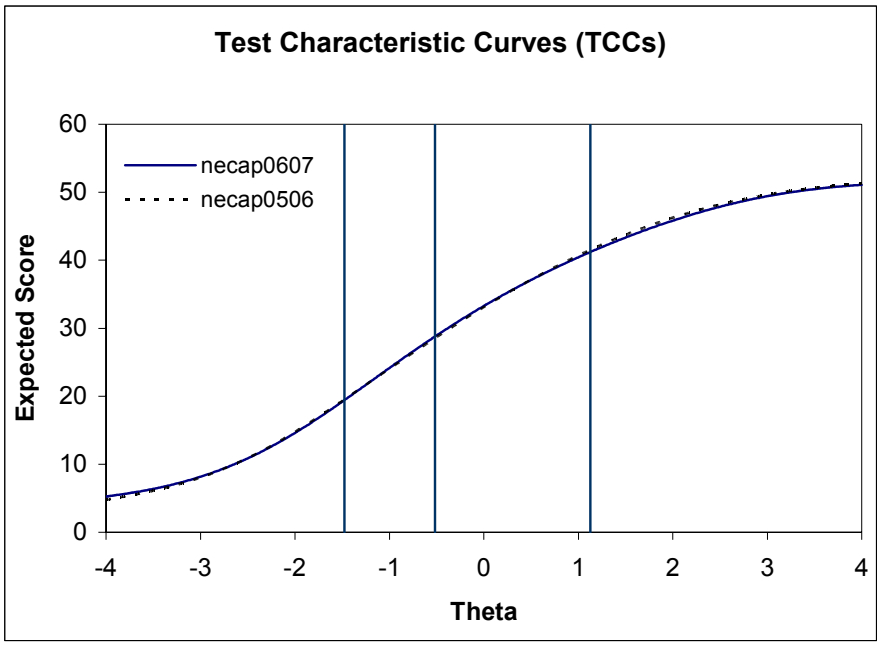
Equating Item Evaluation

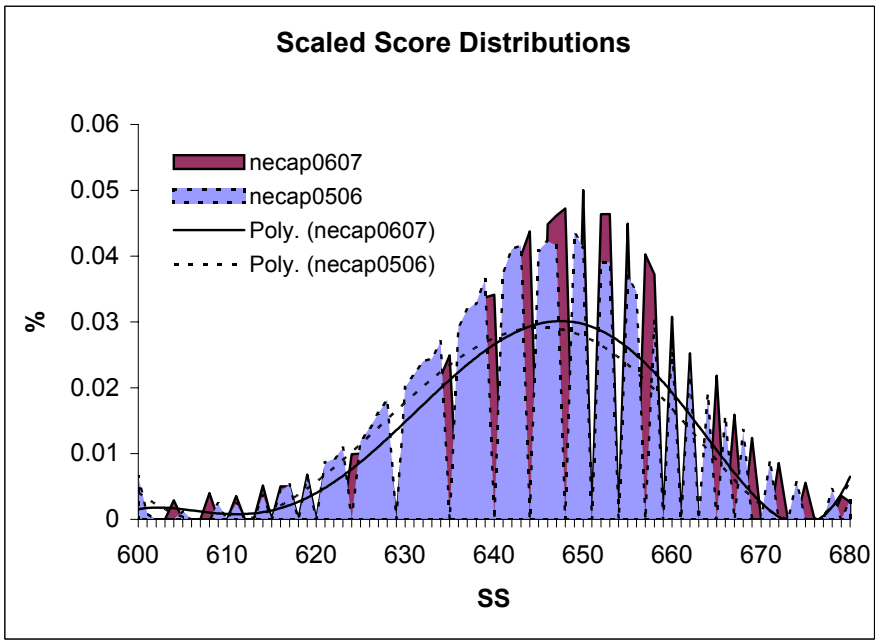






Reading Grade 06





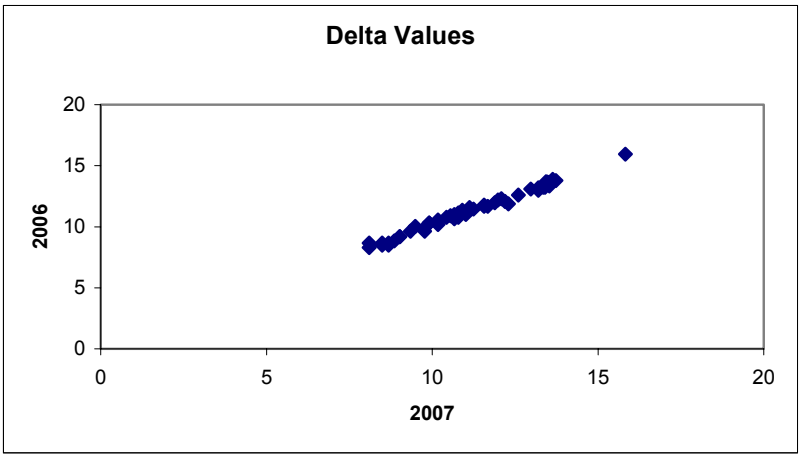
NECAP Reading Grade 06

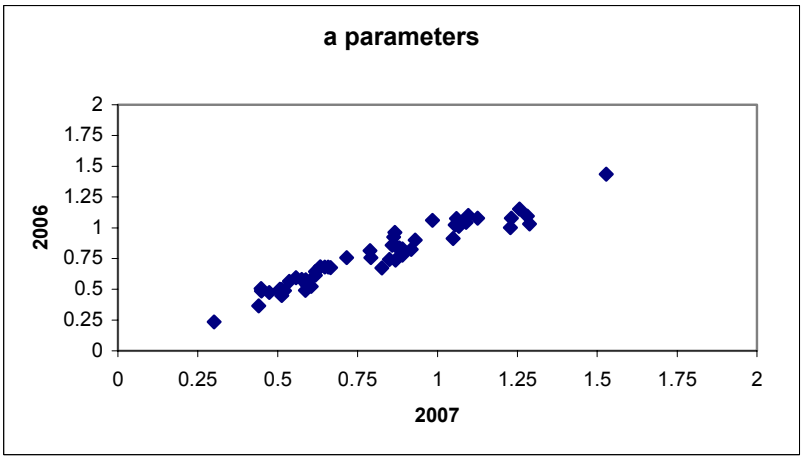
2007		2006	
SS	RS	SS	RS
600	0	600	0
600	1	600	1
600	2	600	2
600	3	600	3
600	4	600	4
600	5	601	5
604	6	605	6
608	7	609	7
611	8	611	8
614	9	614	9
616	10	616	10
617	11	617	11
619	12	619	12
621	13	621	13
622	14	622	14
624	15	623	15
625	16	625	16
626	17	626	17
627	18	627	18
628	19	628	19
630	20	630	20
631	21	631	21
632	22	632	22
633	23	633	23
634	24	634	24
635	25	636	25
637	26	637	26
638	27	638	27
639	28	639	28
640	29	641	29
642	30	642	30
643	31	643	31
644	32	645	32
646	33	646	33
647	34	647	34
648	35	649	35
650	36	650	36
652	37	652	37
653	38	653	38
655	39	655	39
657	40	656	40
658	41	658	41
660	42	660	42
662	43	662	43
665	44	664	44
667	45	666	45
669	46	668	46
672	47	671	47

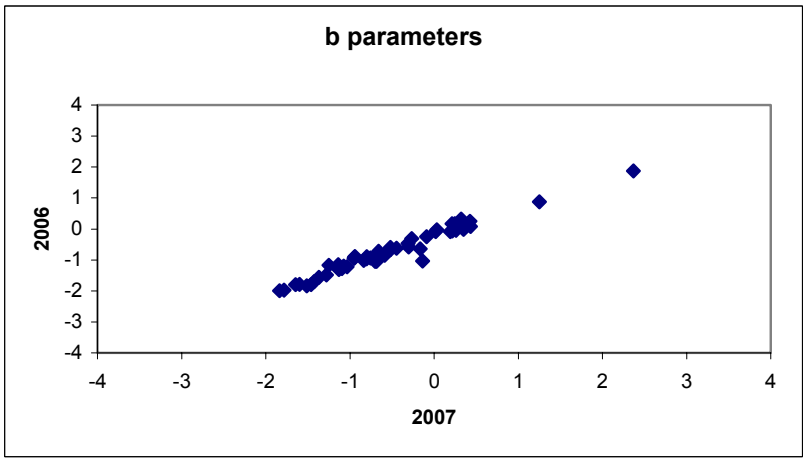
2007		2006	
SS	RS	SS	RS
675	48	674	48
679	49	678	49
680	50	680	50
680	51	680	51
680	52	680	52

Reading Grade 07

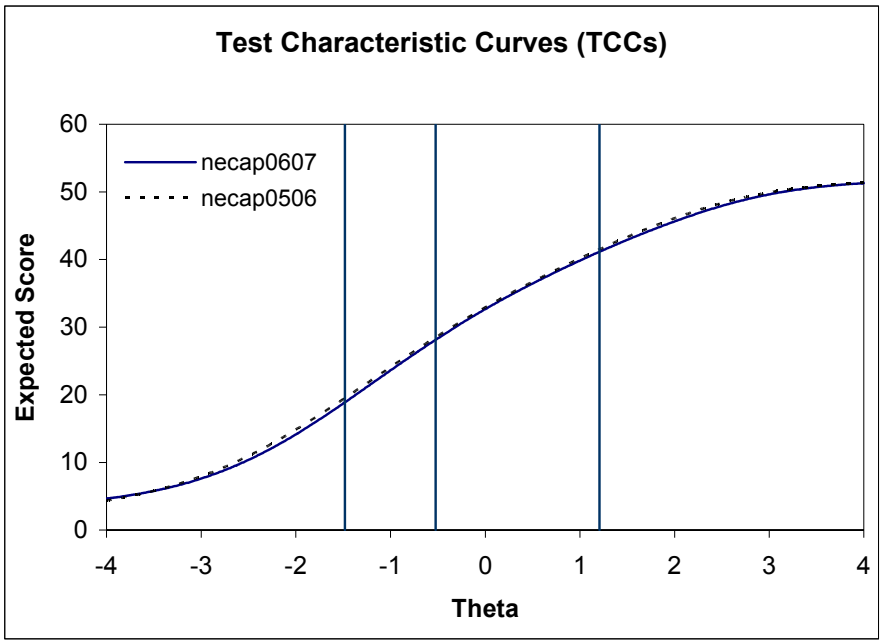
Equating Item Evaluation

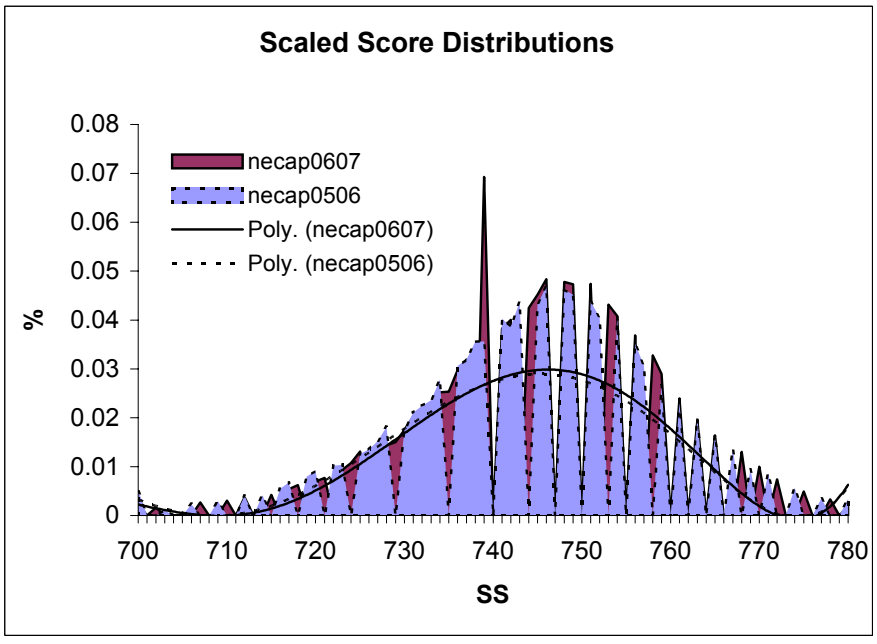






Reading Grade 07





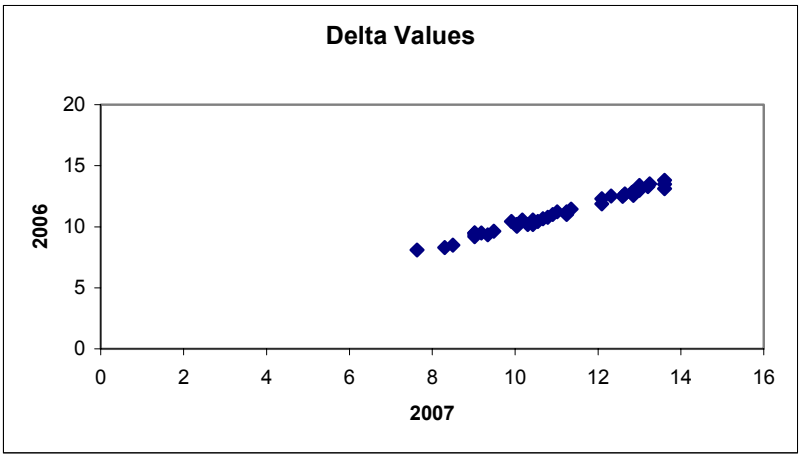
NECAP Reading Grade 07

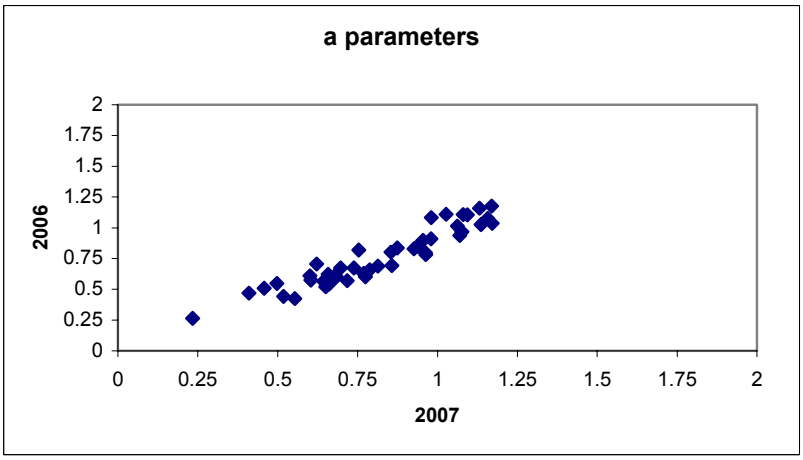
2007		2006	
SS	RS	SS	RS
700	0	700	0
700	1	700	1
700	2	700	2
700	3	700	3
700	4	700	4
702	5	703	5
707	6	706	6
710	7	709	7
712	8	712	8
715	9	714	9
717	10	716	10
718	11	717	11
720	12	719	12
721	13	720	13
723	14	722	14
724	15	723	15
725	16	725	16
727	17	726	17
728	18	727	18
729	19	728	19
730	20	730	20
731	21	731	21
733	22	732	22
734	23	733	23
735	24	734	24
736	25	736	25
737	26	737	26
739	27	738	27
739	28	739	28
741	29	741	29
742	30	742	30
744	31	743	31
745	32	745	32
746	33	746	33
748	34	748	34
749	35	749	35
751	36	751	36
753	37	752	37
754	38	754	38
756	39	756	39
758	40	757	40
759	41	759	41
761	42	761	42
763	43	763	43
765	44	765	44
768	45	767	45
770	46	769	46
772	47	771	47

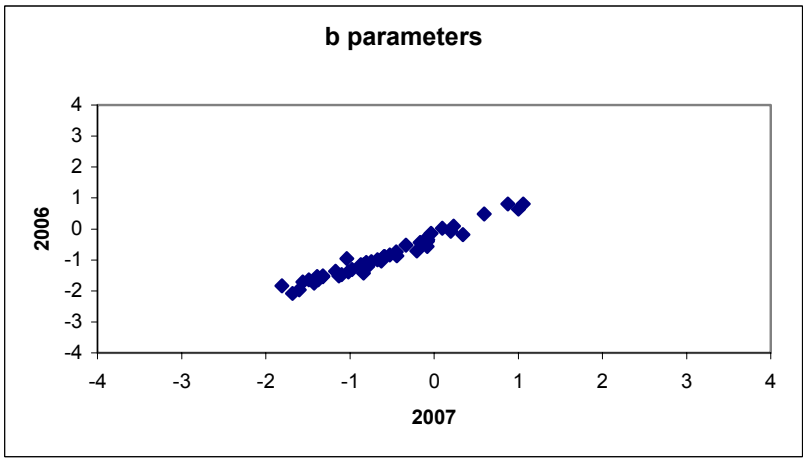
2007		2006	
SS	RS	SS	RS
775	48	774	48
778	49	777	49
780	50	780	50
780	51	780	51
780	52	780	52

Reading Grade 08

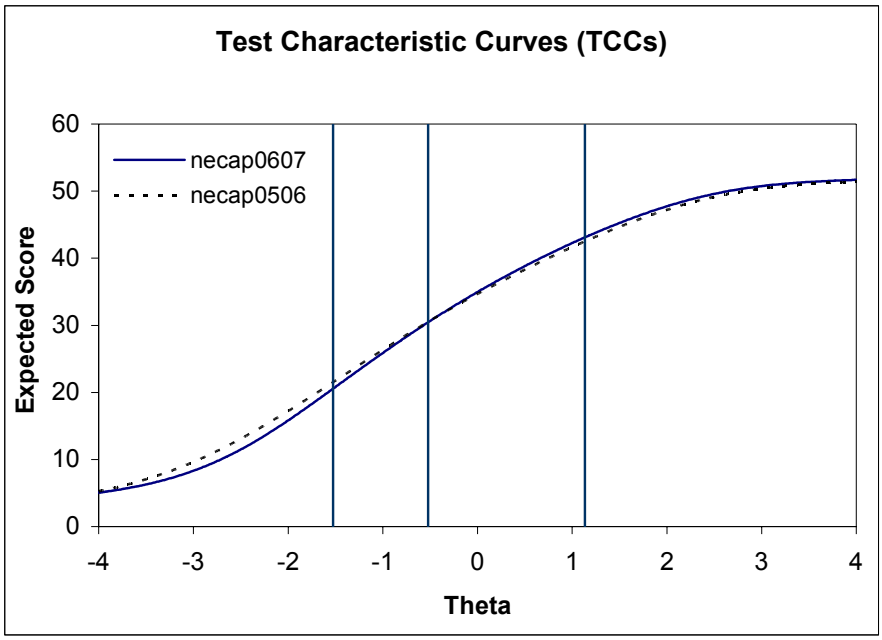
Equating Item Evaluation

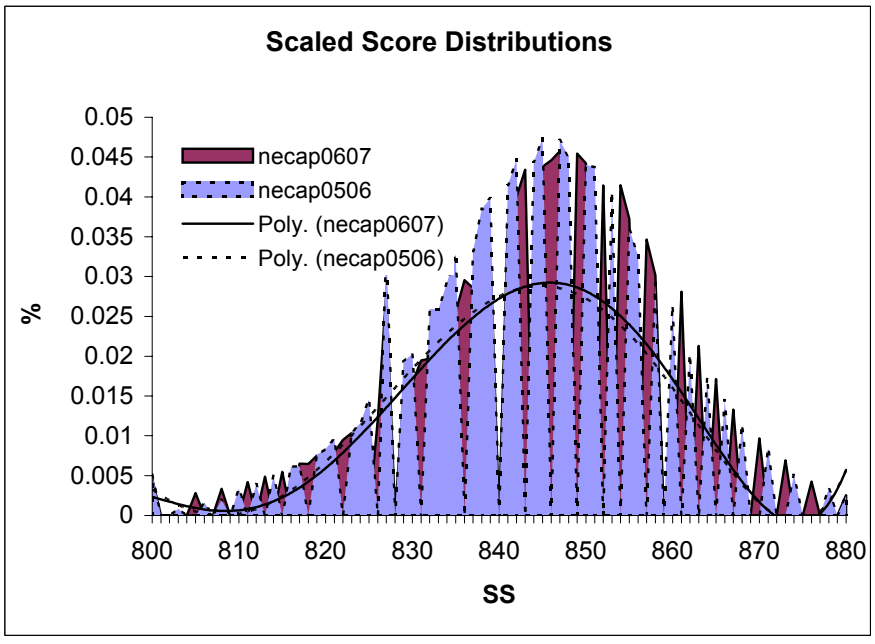






Reading Grade 08



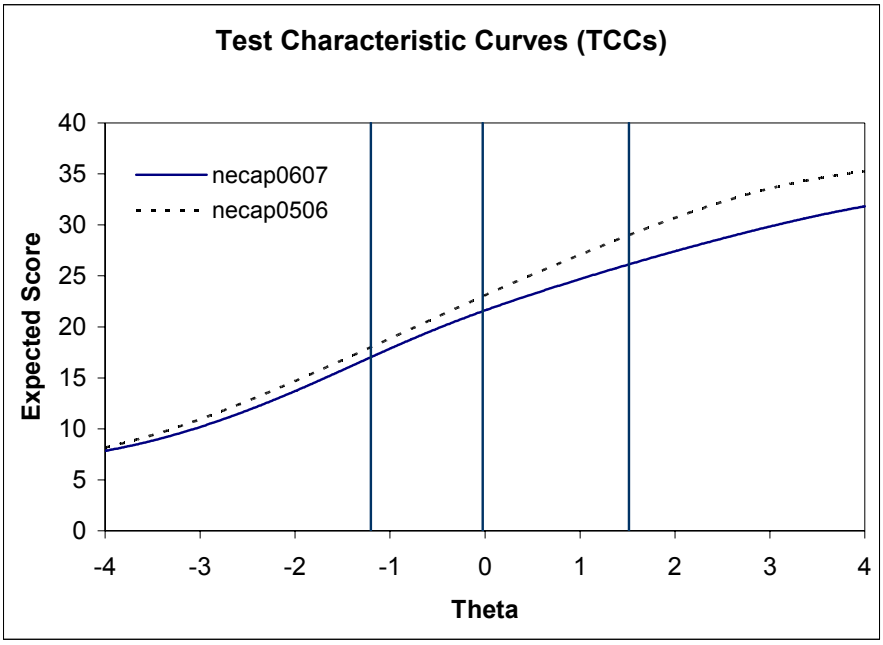


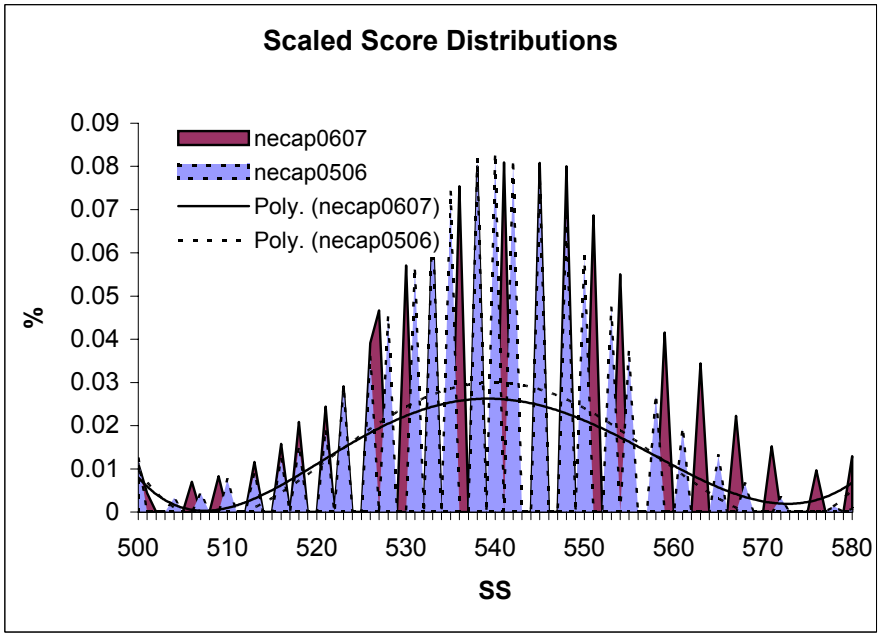
NECAP Reading Grade 08

2007		2006	
SS	RS	SS	RS
800	0	800	0
800	1	800	1
800	2	800	2
800	3	800	3
800	4	800	4
800	5	800	5
805	6	803	6
808	7	806	7
811	8	808	8
813	9	810	9
815	10	812	10
817	11	814	11
818	12	816	12
819	13	817	13
821	14	819	14
822	15	820	15
823	16	821	16
824	17	823	17
826	18	824	18
827	19	825	19
827	20	827	20
829	21	827	21
830	22	829	22
831	23	830	23
832	24	832	24
833	25	833	25
835	26	834	26
836	27	835	27
837	28	837	28
838	29	838	29
839	30	839	30
841	31	841	31
842	32	842	32
843	33	844	33
845	34	845	34
846	35	847	35
847	36	848	36
849	37	850	37
850	38	851	38
852	39	853	39
854	40	855	40
855	41	856	41
857	42	858	42
858	43	860	43
861	44	862	44
863	45	864	45
865	46	866	46
867	47	868	47

2007		2006	
SS	RS	SS	RS
870	48	871	48
873	49	874	49
876	50	878	50
880	51	880	51
880	52	880	52

Writing Grade 05

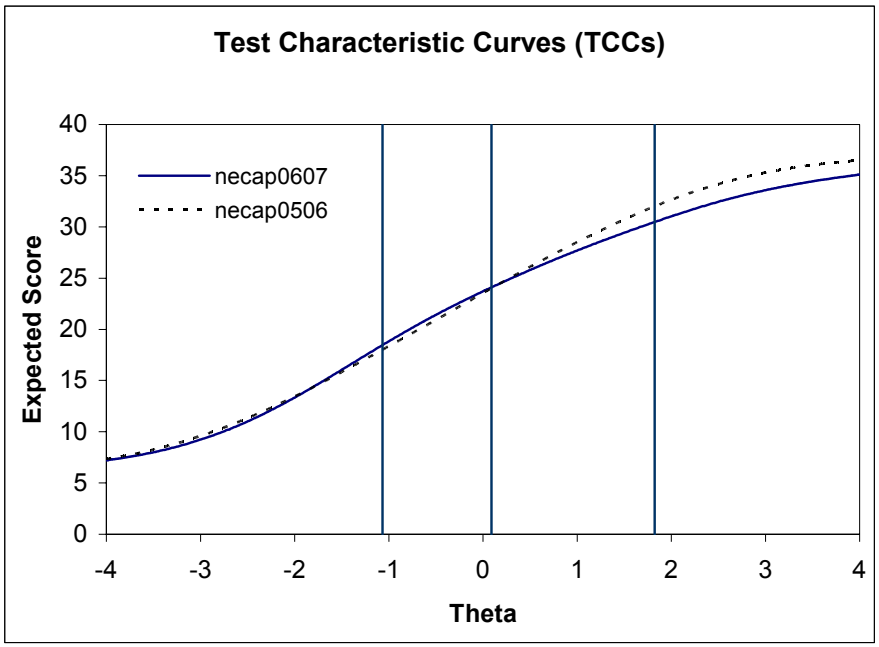


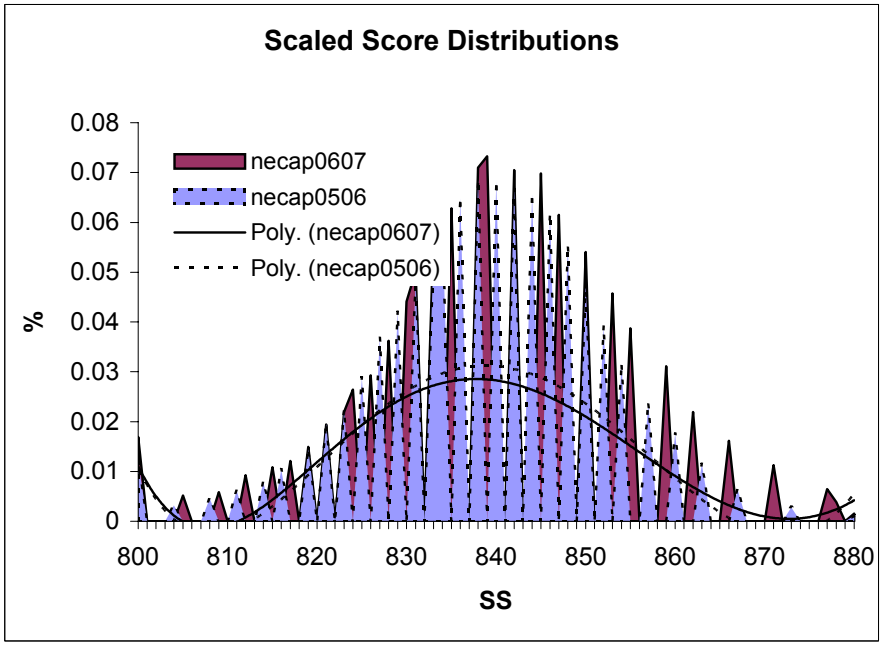


NECAP Writing Grade 05

2007		2006	
SS	RS	SS	RS
500	0	500	0
500	1	500	1
500	2	500	2
500	3	500	3
500	4	500	4
500	5	500	5
500	6	500	6
500	7	500	7
501	8	500	8
506	9	504	9
509	10	507	10
513	11	510	11
516	12	513	12
518	13	516	13
521	14	518	14
523	15	521	15
526	16	523	16
527	17	526	17
530	18	528	18
533	19	531	19
536	20	533	20
538	21	535	21
541	22	538	22
545	23	540	23
548	24	542	24
551	25	545	25
554	26	548	26
559	27	550	27
563	28	553	28
567	29	555	29
571	30	558	30
576	31	561	31
580	32	565	32
580	33	568	33
580	34	572	34
580	35	578	35
580	36	580	36
580	37	580	37

Writing Grade 08





NECAP Writing Grade 08

2007		2006	
SS	RS	SS	RS
800	0	800	0
800	1	800	1
800	2	800	2
800	3	800	3
800	4	800	4
800	5	800	5
800	6	800	6
800	7	800	7
805	8	804	8
809	9	808	9
812	10	811	10
815	11	814	11
817	12	816	12
819	13	819	13
821	14	821	14
823	15	823	15
824	16	825	16
826	17	827	17
828	18	829	18
830	19	831	19
831	20	833	20
833	21	834	21
835	22	836	22
838	23	838	23
839	24	840	24
842	25	842	25
845	26	844	26
847	27	846	27
850	28	848	28
853	29	850	29
855	30	852	30
859	31	854	31
862	32	857	32
866	33	860	33
871	34	863	34
877	35	867	35
878	36	873	36
880	37	880	37

SECTION II.B

NECAP
Rescore Analysis Results

NECAP
Rescore Analysis Results

For Mathematics and Reading, a rescore analysis was conducted to evaluate potential constructed-response equating items. For each potential equating item, a sample of approximately 200 papers from the 2005-06 test was randomly selected and rescored by this year's scorers. The scores for the two years were compared, and any items found to have a large difference between the average scores would be excluded as equating items.

The results of the rescore analysis are shown in the tables below. As can be seen in the tables, no constructed-response items were excluded for use as equating items as a result of the rescore analysis.

MATH GRADE 3								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
223935	2	0.3725	0.3775	0.6777	0.6999	0.0072	0.0049	NO
198505	2	1.4098	1.4244	0.7638	0.7653	0.0192	0.0146	NO
198631	2	0.8824	0.9069	0.8019	0.8081	0.0306	0.0245	NO
223926	2	0.9512	0.9415	0.5566	0.5468	-0.0175	0.0098	NO
227127	2	0.7268	0.7512	0.7282	0.7269	0.0335	0.0244	NO
202089	2	0.7756	0.7415	0.9517	0.9352	-0.0359	0.0341	NO
242311	2	1.2439	1.239	0.6692	0.6746	-0.0073	0.0049	NO
198521	2	0.8634	0.8732	0.8386	0.8106	0.0116	0.0098	NO
231019	2	1.478	1.4683	0.7624	0.7556	-0.0128	0.0098	NO
231017	2	0.6634	0.6634	0.6238	0.5917	0	0	NO

MATH GRADE 4								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
224093	2	0.67	0.7685	0.7324	0.7756	0.1345	0.0985	NO
198427	2	1.6275	1.652	0.6631	0.6274	0.037	0.0245	NO
227116	2	1.1073	1.0732	0.7639	0.796	-0.0447	0.0341	NO
227063	2	1.6488	1.6732	0.5442	0.5548	0.0448	0.0244	NO
227082	2	1.0882	1.1225	0.612	0.5938	0.0561	0.0343	NO
232607	2	0.8146	0.7707	0.8053	0.8329	-0.0545	0.0439	NO
202369	2	1.1805	1.1317	0.862	0.8819	-0.0566	0.0488	NO
202489	2	1.133	1.1379	0.8287	0.8249	0.0059	0.0049	NO
202368	2	1.2	1.1707	0.6655	0.659	-0.044	0.0293	NO
202368	2	1.2	1.1707	0.6655	0.659	-0.044	0.0293	NO
198439	2	0.9659	1.0049	0.8461	0.8639	0.0461	0.039	NO

MATH GRADE 5								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
203621	2	0.5512	0.5756	0.7545	0.7653	0.0323	0.0244	NO
198655	4	1.8146	1.7463	1.356	1.3413	-0.0504	0.0683	NO
230712	2	0.9512	0.8976	0.7762	0.7353	-0.0691	0.0537	NO
225430	4	1.4244	1.4244	0.9977	1.0171	0	0	NO
198603	2	1.2341	1.2293	0.8632	0.873	-0.0057	0.0049	NO
234368	2	1.0637	1.0392	0.9133	0.9066	-0.0268	0.0245	NO
234368	2	1.0637	1.0392	0.9133	0.9066	-0.0268	0.0245	NO
230971	4	2.1659	2.0585	1.5276	1.4672	-0.0703	0.1073	NO
198567	4	1.1561	1.0683	1.4365	1.3847	-0.0611	0.0878	NO
198653	2	1.2683	1.2683	0.9005	0.9219	0	0	NO
230969	2	0.8971	0.8775	0.7437	0.7473	-0.0264	0.0196	NO

MATH GRADE 6								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
203345	4	1.9366	1.9463	1.1438	1.1008	0.0085	0.0098	NO
203632	4	1.2745	1.2892	1.156	1.1672	0.0127	0.0147	NO
234406	2	1.0686	1.0392	0.7766	0.8034	-0.0379	0.0294	NO
234417	4	1.6683	1.639	1.6986	1.7409	-0.0172	0.0293	NO
203550	2	0.9805	1.0439	0.7961	0.792	0.0797	0.0634	NO
198726	2	0.6146	0.6829	0.857	0.8678	0.0797	0.0683	NO
198726	2	0.6146	0.6829	0.857	0.8678	0.0797	0.0683	NO
203259	2	1.2146	1.1854	0.8683	0.8861	-0.0337	0.0293	NO
203259	2	1.2146	1.1854	0.8683	0.8861	-0.0337	0.0293	NO
228072	4	1.1422	1.1961	1.165	1.1885	0.0463	0.0539	NO
228072	4	1.1422	1.1961	1.165	1.1885	0.0463	0.0539	NO
234419	2	1.0195	1	0.9264	0.9318	-0.0211	0.0195	NO
234419	2	1.0195	1	0.9264	0.9318	-0.0211	0.0195	NO
225393	2	0.6029	0.549	0.813	0.818	-0.0663	0.0539	NO

MATH GRADE 7								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
206198	4	0.7685	0.7882	0.9929	1.0217	0.0198	0.0197	NO
234455	2	0.5931	0.5931	0.5826	0.5826	0	0	NO
224844	2	1.0735	1.0784	0.8853	0.871	0.0055	0.0049	NO
206189	2	0.5902	0.6244	0.8012	0.8087	0.0426	0.0341	NO
206127	4	1.522	1.478	1.1113	1.1156	-0.0395	0.0439	NO
206215	2	0.6863	0.6863	0.8909	0.8854	0	0	NO
234461	2	1.0784	1.0637	0.9821	0.9756	-0.015	0.0147	NO
233744	4	1.1765	1.2353	1.0564	1.0726	0.0557	0.0588	NO
206152	2	0.403	0.3134	0.6	0.5429	-0.1493	0.0896	NO
234453	4	1.8325	1.8079	1.3615	1.3852	-0.0181	0.0246	NO

MATH GRADE 8								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
206239	2	1.0049	0.9756	0.8582	0.8636	-0.0341	0.0293	NO
206330	2	0.7415	0.7024	0.9034	0.9129	-0.0432	0.039	NO
206352	4	1.2341	1.2195	1.1493	1.1286	-0.0127	0.0146	NO
224980	4	1.2255	1.25	1.3749	1.4077	0.0178	0.0245	NO
199783	2	0.6293	0.561	0.5124	0.5156	-0.1333	0.0683	NO
224947	2	0.7024	0.722	0.823	0.8356	0.0237	0.0195	NO
224947	2	0.7024	0.722	0.823	0.8356	0.0237	0.0195	NO
224962	4	0.7574	0.599	1.1282	0.9712	-0.1404	0.1584	NO
206331	4	2.0539	2.0441	1.1598	1.1517	-0.0085	0.0098	NO
206331	4	2.0539	2.0441	1.1598	1.1517	-0.0085	0.0098	NO
234148	2	0.5756	0.5805	0.5847	0.584	0.0083	0.0049	NO

READING GRADE 3								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
225186	4	1.7157	1.7206	0.9007	0.8719	0.0054	0.0049	NO
205940	4	2.4049	2.4244	1.313	1.2651	0.0149	0.0195	NO
230980	4	1.561	1.6829	1.1401	1.0693	0.107	0.122	NO
230973	4	2	1.8333	1.1964	1.1469	-0.1393	0.1667	NO
201708	4	2.064	2.2315	1.0271	1.132	0.1631	0.1675	NO
201707	4	2.15	2.09	1.0618	0.9859	-0.0565	0.06	NO
225242	4	3.5317	3.561	0.8411	0.7793	0.0348	0.0293	NO
225253	4	1.8177	1.8916	1.2402	1.2067	0.0596	0.0739	NO

READING GRADE 4								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
225776	4	1.9901	2.0493	1.0362	0.9864	0.057	0.0591	NO
225776	4	1.9901	2.0493	1.0362	0.9864	0.057	0.0591	NO
225778	4	1.3415	1.3122	0.85	0.8025	-0.0344	0.0293	NO
203810	4	2.8431	2.7206	1.2106	1.293	-0.1012	0.1225	NO
232528	4	2.7317	2.7268	1.3938	1.3447	-0.0035	0.0049	NO
203873	4	2.6716	2.4461	0.9827	0.8587	-0.2295	0.2255	NO
232595	4	1.8431	1.7402	1.1819	1.1948	-0.0871	0.1029	NO
203768	4	1.4732	1.3122	0.9189	0.9927	-0.1752	0.161	NO

READING GRADE 5								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
201769	4	2.1527	1.8522	1.0697	1.0063	-0.2809	0.3005	NO
202072	4	1.4829	1.439	0.9956	0.974	-0.0441	0.0439	NO
202075	4	1.798	1.6601	0.9435	0.835	-0.1462	0.1379	NO
201937	4	1.8177	1.67	0.9932	1.1423	-0.1488	0.1478	NO
230671	4	1.705	1.65	0.8706	0.8646	-0.0632	0.055	NO
233132	4	1.3713	1.4752	1.0029	0.9184	0.1037	0.104	NO
201911	4	1.7843	1.5931	0.8703	0.8779	-0.2197	0.1912	NO
226515	4	1.2562	1.3103	0.9992	0.9506	0.0542	0.0542	NO
226517	4	1.5343	1.5147	1.0636	0.9418	-0.0184	0.0196	NO
226517	4	1.5343	1.5147	1.0636	0.9418	-0.0184	0.0196	NO

READING GRADE 6								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
200348	4	1.878	1.9024	0.9827	0.9729	0.0248	0.0244	NO
204294	4	1.4069	1.4559	0.8553	0.8706	0.0573	0.049	NO
204298	4	1.3561	1.3463	0.95	0.9277	-0.0103	0.0098	NO
204006	4	1.3951	1.1805	0.7746	0.7725	-0.2771	0.2146	NO
204026	4	1.6341	1.9756	0.9767	0.9076	0.3496	0.3415	NO
204022	4	1.6	1.7707	0.8181	0.8503	0.2087	0.1707	NO
226669	4	1.6976	1.922	0.7563	0.88	0.2967	0.2244	NO
226730	4	1.639	1.7463	0.9609	0.8966	0.1117	0.1073	NO
226730	4	1.639	1.7463	0.9609	0.8966	0.1117	0.1073	NO
226735	4	1.7463	1.6927	1.0044	1.0113	-0.0534	0.0537	NO

READING GRADE 7								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
201535	4	1.8515	1.7228	0.948	0.9504	-0.1358	0.1287	NO
199609	4	1.7277	1.7376	1.0148	0.8875	0.0098	0.0099	NO
199608	4	1.7562	1.7114	1.0198	1.0865	-0.0439	0.0448	NO
201564	4	2.54	2.395	1.1482	1.0812	-0.1263	0.145	NO
199535	4	1.7635	1.6897	0.9115	0.9558	-0.0811	0.0739	NO
199536	4	1.9296	1.7387	0.8711	0.8519	-0.2192	0.191	NO
199569	4	2.0245	2.049	0.9468	0.9485	0.0259	0.0245	NO
201492	4	1.7783	1.7291	0.9852	0.9778	-0.05	0.0493	NO
201490	4	2	1.8088	0.9497	1.0468	-0.2013	0.1912	NO

READING GRADE 8								
IREF	MAXIMUM	OLDMEAN	NEWMEAN	OLDSTDEV	NEWSTDEV	EFF_SIZE	ABS_DIFF	DISCARD
204155	4	1.7206	1.7647	0.883	1.0211	0.05	0.0441	NO
206119	4	2.1667	2.1716	1.058	0.9975	0.0046	0.0049	NO
204494	4	2.122	2.039	1.0405	0.9568	-0.0797	0.0829	NO
204128	4	2.0245	1.7941	0.86	0.948	-0.2679	0.2304	NO
204133	4	2.1029	2.1029	0.9205	0.9258	0	0	NO
199619	4	2.1707	1.9854	0.8526	0.9343	-0.2174	0.1854	NO
199674	4	1.9366	1.878	0.8728	0.9317	-0.0671	0.0585	NO
199675	4	2.1366	2.0927	0.8839	0.9403	-0.0497	0.0439	NO

APPENDIX D

RAW TO SCALED SCORE CONVERSIONS

Table D-1. 2006-07 NECAP Scale Conversion: Math Grade 3.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	300	300	300	1
1	-4.00	300	300	300	1
2	-4.00	300	300	300	1
3	-4.00	300	300	300	1
4	-4.00	300	300	300	1
5	-4.00	300	300	303	1
6	-4.00	300	300	307	1
7	-3.71	303	300	313	1
8	-3.31	307	300	315	1
9	-3.01	311	300	317	1
10	-2.78	313	303	319	1
11	-2.58	315	307	320	1
12	-2.41	317	311	321	1
13	-2.26	319	313	323	1
14	-2.13	320	315	324	1
15	-2.01	321	317	325	1
16	-1.89	323	319	327	1
17	-1.79	324	319	328	1
18	-1.69	325	320	329	1
19	-1.60	326	321	329	1
20	-1.51	327	323	330	1
21	-1.42	328	324	331	1
22	-1.34	329	325	332	1
23	-1.26	329	326	333	1
24	-1.18	330	327	333	1
25	-1.11	331	328	334	1
26	-1.03	332	329	335	2
27	-0.96	333	329	336	2
28	-0.89	333	330	336	2
29	-0.82	334	331	337	2
30	-0.75	335	332	338	2
31	-0.68	336	333	338	2
32	-0.61	336	333	339	2
33	-0.54	337	334	339	2
34	-0.48	338	335	341	2
35	-0.41	338	336	341	2
36	-0.34	339	336	342	2
37	-0.28	339	337	343	2

(cont'd)

Table D-1. 2006-07 NECAP Scale Conversion: Math Grade 3 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
38	-0.21	341	338	343	3
39	-0.14	341	338	344	3
40	-0.08	342	339	345	3
41	-0.01	343	339	346	3
42	0.06	343	341	346	3
43	0.13	344	341	347	3
44	0.20	345	342	348	3
45	0.27	346	343	349	3
46	0.34	346	343	350	3
47	0.41	347	344	351	3
48	0.48	348	345	352	3
49	0.56	349	346	352	3
50	0.64	350	347	352	3
51	0.72	351	348	353	3
52	0.81	352	349	355	3
53	0.89	352	350	356	3
54	0.99	353	351	357	4
55	1.09	355	352	358	4
56	1.19	356	352	360	4
57	1.30	357	353	361	4
58	1.43	358	355	364	4
59	1.57	360	357	364	4
60	1.73	361	358	366	4
61	1.93	364	360	370	4
62	2.17	366	361	376	4
63	2.52	370	366	376	4
64	3.10	376	370	380	4
65	4.00	380	380	380	4

Table D-2. 2006-07 NECAP Scale Conversion: Math Grade 4.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	400	400	400	1
1	-4.00	400	400	400	1
2	-4.00	400	400	400	1
3	-4.00	400	400	400	1
4	-4.00	400	400	400	1
5	-4.00	400	400	404	1
6	-4.00	400	400	408	1
7	-3.62	404	400	412	1
8	-3.32	408	400	414	1
9	-3.07	410	400	416	1
10	-2.87	412	404	418	1
11	-2.69	414	408	419	1
12	-2.54	416	410	421	1
13	-2.39	418	412	422	1
14	-2.26	419	414	423	1
15	-2.14	421	416	424	1
16	-2.03	422	418	426	1
17	-1.92	423	418	427	1
18	-1.82	424	419	428	1
19	-1.72	425	421	429	1
20	-1.63	426	422	430	1
21	-1.54	427	423	430	1
22	-1.45	428	424	432	1
23	-1.37	429	425	433	1
24	-1.29	430	426	433	1
25	-1.21	430	427	434	1
26	-1.13	432	428	435	2
27	-1.05	433	429	436	2
28	-0.97	433	430	437	2
29	-0.90	434	430	437	2
30	-0.83	435	432	438	2
31	-0.75	436	433	439	2
32	-0.68	437	433	439	2
33	-0.61	437	434	441	2
34	-0.54	438	435	441	2
35	-0.47	439	436	442	2
36	-0.40	439	437	443	2

(cont'd)

Table D-2. 2006-07 NECAP Scale Conversion: Math Grade 4 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
37	-0.33	441	437	444	3
38	-0.26	441	438	444	3
39	-0.19	442	439	445	3
40	-0.12	443	439	446	3
41	-0.04	444	441	447	3
42	0.03	444	441	448	3
43	0.10	445	442	449	3
44	0.18	446	443	450	3
45	0.25	447	444	450	3
46	0.33	448	444	451	3
47	0.41	449	445	452	3
48	0.49	450	446	453	3
49	0.57	450	448	454	3
50	0.66	451	449	454	3
51	0.75	452	450	456	3
52	0.84	453	450	457	3
53	0.94	454	451	458	3
54	1.05	456	452	460	4
55	1.16	457	453	461	4
56	1.28	458	454	463	4
57	1.41	460	456	465	4
58	1.56	461	457	468	4
59	1.72	463	460	468	4
60	1.92	465	461	472	4
61	2.16	468	463	477	4
62	2.48	472	465	480	4
63	2.96	477	472	480	4
64	3.90	480	477	480	4
65	4.00	480	480	480	4

Table D-3. 2006-07 NECAP Scale Conversion: Math Grade 5.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	500	500	500	1
1	-4.00	500	500	500	1
2	-4.00	500	500	500	1
3	-4.00	500	500	500	1
4	-4.00	500	500	503	1
5	-4.00	500	500	510	1
6	-3.73	503	500	514	1
7	-3.08	510	500	520	1
8	-2.70	514	500	522	1
9	-2.41	517	503	523	1
10	-2.19	520	510	525	1
11	-2.00	522	514	526	1
12	-1.83	523	517	528	1
13	-1.68	525	520	529	1
14	-1.55	526	522	530	1
15	-1.43	528	523	531	1
16	-1.31	529	523	533	1
17	-1.21	530	525	534	1
18	-1.11	531	526	535	1
19	-1.01	532	528	536	1
20	-0.92	533	529	537	2
21	-0.83	534	530	537	2
22	-0.75	535	531	538	2
23	-0.67	536	532	539	2
24	-0.59	537	533	539	2
25	-0.52	537	534	540	2
26	-0.45	538	535	541	2
27	-0.38	539	536	542	2
28	-0.31	539	537	543	2

(cont'd)

Table D-3. 2006-07 NECAP Scale Conversion: Math Grade 5 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
29	-0.24	540	537	543	3
30	-0.18	541	538	544	3
31	-0.11	542	539	544	3
32	-0.05	543	539	545	3
33	0.01	543	540	546	3
34	0.07	544	541	546	3
35	0.13	544	542	547	3
36	0.19	545	543	548	3
37	0.25	546	543	548	3
38	0.31	546	544	549	3
39	0.37	547	544	550	3
40	0.43	548	545	550	3
41	0.49	548	546	551	3
42	0.55	549	546	552	3
43	0.61	550	547	552	3
44	0.67	550	548	553	3
45	0.73	551	548	553	3
46	0.79	552	549	555	3
47	0.86	552	550	555	3
48	0.92	553	550	556	3
49	0.99	553	551	557	3
50	1.06	555	552	558	4
51	1.14	555	553	558	4
52	1.21	556	553	559	4
53	1.29	557	555	560	4
54	1.38	558	555	561	4
55	1.47	559	556	562	4
56	1.57	560	557	564	4
57	1.68	561	558	565	4
58	1.80	562	559	567	4
59	1.93	564	560	570	4
60	2.08	565	562	570	4
61	2.25	567	564	573	4
62	2.47	570	565	577	4
63	2.76	573	567	580	4
64	3.19	577	573	580	4
65	4.00	580	577	580	4
66	4.00	580	580	580	4

Table D-4. 2006-07 NECAP Scale Conversion: Math Grade 6.

Raw Score	θ	Scaled Score	Error Band		Performance Level
			Lower Bound	Upper Bound	
0	-4.00	600	600	600	1
1	-4.00	600	600	600	1
2	-4.00	600	600	600	1
3	-4.00	600	600	600	1
4	-4.00	600	600	600	1
5	-4.00	600	600	609	1
6	-4.00	600	600	615	1
7	-3.14	609	600	621	1
8	-2.60	615	600	623	1
9	-2.25	619	600	625	1
10	-2.00	621	609	627	1
11	-1.79	623	615	628	1
12	-1.63	625	619	629	1
13	-1.48	627	621	630	1
14	-1.35	628	623	631	1
15	-1.24	629	625	632	1
16	-1.13	630	625	634	1
17	-1.04	631	627	635	1
18	-0.95	632	628	636	1
19	-0.86	633	629	636	2
20	-0.78	634	630	637	2
21	-0.70	635	631	638	2
22	-0.63	636	632	639	2
23	-0.56	636	633	639	2
24	-0.49	637	634	640	2
25	-0.42	638	635	641	2
26	-0.35	639	636	641	2
27	-0.29	639	636	642	2

(cont'd)

Table D-4. 2006-07 NECAP Scale Conversion: Math Grade 6 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
28	-0.22	640	637	643	3
29	-0.16	641	638	643	3
30	-0.10	641	639	644	3
31	-0.03	642	639	645	3
32	0.03	643	640	645	3
33	0.09	643	641	646	3
34	0.15	644	641	647	3
35	0.21	645	642	647	3
36	0.27	645	643	648	3
37	0.33	646	643	648	3
38	0.39	647	644	649	3
39	0.45	647	645	650	3
40	0.51	648	645	650	3
41	0.57	648	646	651	3
42	0.63	649	647	652	3
43	0.70	650	647	652	3
44	0.76	650	648	652	3
45	0.82	651	648	654	3
46	0.89	652	649	655	3
47	0.95	652	650	655	3
48	1.02	652	650	656	3
49	1.09	654	651	657	4
50	1.16	655	652	658	4
51	1.23	655	652	658	4
52	1.30	656	654	659	4
53	1.38	657	655	660	4
54	1.46	658	655	661	4
55	1.55	659	656	662	4
56	1.64	660	657	663	4
57	1.73	661	658	665	4
58	1.84	662	659	666	4
59	1.96	663	660	668	4
60	2.09	665	662	668	4
61	2.24	666	663	671	4
62	2.43	668	665	674	4
63	2.67	671	666	680	4
64	3.01	674	671	680	4
65	3.62	680	674	680	4
66	4.00	680	680	680	4

Table D-5. 2006-07 NECAP Scale Conversion: Math Grade 7.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	700	700	700	1
1	-4.00	700	700	700	1
2	-4.00	700	700	700	1
3	-4.00	700	700	700	1
4	-4.00	700	700	700	1
5	-4.00	700	700	709	1
6	-4.00	700	700	715	1
7	-3.12	709	700	721	1
8	-2.57	715	700	723	1
9	-2.21	718	700	725	1
10	-1.94	721	709	727	1
11	-1.73	723	715	728	1
12	-1.54	725	718	730	1
13	-1.37	727	721	731	1
14	-1.23	728	723	732	1
15	-1.09	730	725	733	1
16	-0.97	731	725	735	1
17	-0.85	732	727	736	1
18	-0.75	733	728	737	1
19	-0.64	734	730	738	2
20	-0.55	735	731	739	2
21	-0.45	736	732	739	2
22	-0.36	737	733	740	2
23	-0.28	738	734	741	2
24	-0.20	739	735	742	2
25	-0.12	739	736	743	2

(cont'd)

Table D-5. 2006-07 NECAP Scale Conversion: Math Grade 7 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
26	-0.04	740	737	743	3
27	0.03	741	738	744	3
28	0.10	742	739	745	3
29	0.17	743	739	745	3
30	0.24	743	740	746	3
31	0.31	744	741	747	3
32	0.37	745	742	747	3
33	0.44	745	743	748	3
34	0.50	746	743	748	3
35	0.56	747	744	749	3
36	0.63	747	745	750	3
37	0.69	748	745	750	3
38	0.75	748	746	751	3
39	0.81	749	747	751	3
40	0.87	750	747	752	3
41	0.93	750	748	753	3
42	0.99	751	748	753	3
43	1.05	751	749	754	3
44	1.11	752	750	755	4
45	1.18	753	750	756	4
46	1.24	753	751	756	4
47	1.31	754	751	757	4
48	1.38	755	752	758	4
49	1.45	756	753	759	4
50	1.52	756	753	760	4
51	1.59	757	755	760	4
52	1.67	758	756	761	4
53	1.75	759	756	762	4
54	1.84	760	757	763	4
55	1.94	761	758	764	4
56	2.04	762	759	765	4
57	2.15	763	760	767	4
58	2.27	764	761	769	4
59	2.40	765	762	771	4
60	2.56	767	764	771	4
61	2.74	769	765	774	4
62	2.96	771	767	779	4
63	3.26	774	769	780	4
64	3.74	779	774	780	4
65	4.00	780	779	780	4
66	4.00	780	780	780	4

Table D-6. 2006-07 NECAP Scale Conversion: Math Grade 8.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	800	800	800	1
1	-4.00	800	800	800	1
2	-4.00	800	800	800	1
3	-4.00	800	800	800	1
4	-4.00	800	800	800	1
5	-4.00	800	800	807	1
6	-4.00	800	800	817	1
7	-3.32	807	800	824	1
8	-2.35	817	800	826	1
9	-1.92	821	800	828	1
10	-1.64	824	807	829	1
11	-1.43	826	817	830	1
12	-1.25	828	821	832	1
13	-1.10	829	824	833	1
14	-0.97	830	826	833	1
15	-0.85	832	828	835	1
16	-0.75	833	828	836	1
17	-0.65	833	829	837	1
18	-0.55	835	830	838	2
19	-0.46	836	832	839	2
20	-0.38	836	833	839	2
21	-0.30	837	833	840	2
22	-0.22	838	835	841	2
23	-0.15	839	836	842	2
24	-0.08	839	836	842	2

(cont'd)

Table D-6. 2006-07 NECAP Scale Conversion: Math Grade 8 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
25	-0.01	840	837	843	3
26	0.06	841	838	843	3
27	0.12	842	839	844	3
28	0.18	842	839	845	3
29	0.25	843	840	845	3
30	0.31	843	841	846	3
31	0.37	844	842	846	3
32	0.42	845	842	847	3
33	0.48	845	843	847	3
34	0.54	846	843	848	3
35	0.59	846	844	849	3
36	0.65	847	845	849	3
37	0.71	847	845	850	3
38	0.76	848	846	850	3
39	0.82	849	846	851	3
40	0.87	849	847	851	3
41	0.93	850	847	852	3
42	0.98	850	848	853	3
43	1.04	851	849	853	3
44	1.10	851	849	854	3
45	1.16	852	850	854	4
46	1.22	853	850	855	4
47	1.28	853	851	856	4
48	1.34	854	851	857	4
49	1.40	854	852	857	4
50	1.47	855	853	858	4
51	1.54	856	854	858	4
52	1.62	857	854	859	4
53	1.69	857	855	860	4
54	1.78	858	856	861	4
55	1.86	859	857	862	4
56	1.96	860	857	863	4
57	2.06	861	858	865	4
58	2.17	862	859	867	4
59	2.30	863	860	869	4
60	2.44	865	862	869	4
61	2.61	867	863	871	4
62	2.81	869	865	875	4
63	3.07	871	867	880	4
64	3.42	875	871	880	4
65	4.00	880	875	880	4
66	4.00	880	880	880	4

Table D-7. 2006-07 NECAP Scale Conversion: Reading Grade 3.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	300	300	300	1
1	-4.00	300	300	300	1
2	-4.00	300	300	300	1
3	-4.00	300	300	300	1
4	-4.00	300	300	305	1
5	-4.00	300	300	309	1
6	-3.53	305	300	313	1
7	-3.17	309	300	315	1
8	-2.90	313	300	319	1
9	-2.68	315	305	321	1
10	-2.50	317	309	322	1
11	-2.34	319	313	323	1
12	-2.19	321	315	325	1
13	-2.06	322	317	326	1
14	-1.94	323	319	327	1
15	-1.83	325	321	328	1
16	-1.73	326	322	329	1
17	-1.63	327	323	330	1
18	-1.53	328	325	331	1
19	-1.44	329	325	333	1
20	-1.35	330	326	334	1
21	-1.27	331	327	335	2
22	-1.19	332	328	336	2
23	-1.11	333	329	337	2
24	-1.03	334	330	337	2
25	-0.95	335	331	338	2
26	-0.87	336	332	339	2
27	-0.80	337	333	340	2
28	-0.72	337	334	341	2
29	-0.64	338	335	342	2
30	-0.57	339	336	343	2

(cont'd)

Table D-7. 2006-07 NECAP Scale Conversion: Reading Grade 3 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
31	-0.49	340	337	344	3
32	-0.41	341	337	345	3
33	-0.33	342	338	346	3
34	-0.25	343	340	346	3
35	-0.16	344	341	347	3
36	-0.07	345	342	348	3
37	0.02	346	343	349	3
38	0.11	347	344	350	3
39	0.21	348	345	352	3
40	0.31	349	346	353	3
41	0.42	350	347	355	3
42	0.53	352	348	356	3
43	0.66	353	349	358	3
44	0.80	355	350	361	3
45	0.95	356	353	361	3
46	1.12	358	355	363	4
47	1.31	361	356	367	4
48	1.55	363	358	372	4
49	1.85	367	361	380	4
50	2.27	372	367	380	4
51	2.98	380	372	380	4
52	4.00	380	380	380	4

Table D-8. 2006-07 NECAP Scale Conversion: Reading Grade 4.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	400	400	400	1
1	-4.00	400	400	400	1
2	-4.00	400	400	400	1
3	-4.00	400	400	400	1
4	-4.00	400	400	402	1
5	-4.00	400	400	407	1
6	-3.83	402	400	411	1
7	-3.34	407	400	413	1
8	-3.02	411	400	418	1
9	-2.76	413	402	419	1
10	-2.55	416	407	421	1
11	-2.37	418	411	423	1
12	-2.21	419	413	424	1
13	-2.06	421	416	425	1
14	-1.93	423	418	426	1
15	-1.80	424	419	428	1
16	-1.68	425	421	429	1
17	-1.57	426	423	430	1
18	-1.46	428	424	431	1
19	-1.35	429	424	433	1
20	-1.25	430	425	434	1
21	-1.16	431	426	435	2
22	-1.06	432	428	436	2
23	-0.97	433	429	437	2
24	-0.88	434	430	438	2
25	-0.78	435	431	439	2
26	-0.69	436	432	439	2
27	-0.60	437	433	441	2
28	-0.51	438	434	442	2
29	-0.42	439	435	443	2
30	-0.33	439	436	444	2

(cont'd)

Table D-8. 2006-07 NECAP Scale Conversion: Reading Grade 4 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
31	-0.24	441	437	445	3
32	-0.14	442	438	446	3
33	-0.05	443	439	447	3
34	0.05	444	441	447	3
35	0.16	445	442	449	3
36	0.26	446	443	450	3
37	0.37	447	444	452	3
38	0.49	449	445	453	3
39	0.62	450	446	455	3
40	0.75	452	447	457	3
41	0.89	453	449	458	3
42	1.04	455	450	461	3
43	1.21	457	452	463	4
44	1.39	458	453	466	4
45	1.59	461	457	466	4
46	1.82	463	458	469	4
47	2.09	466	461	473	4
48	2.40	469	463	478	4
49	2.76	473	466	480	4
50	3.23	478	473	480	4
51	3.95	480	478	480	4
52	4.00	480	480	480	4

Table D-9. 2006-07 NECAP Scale Conversion: Reading Grade 5.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	500	500	500	1
1	-4.00	500	500	500	1
2	-4.00	500	500	500	1
3	-4.00	500	500	503	1
4	-4.00	500	500	509	1
5	-3.71	503	500	513	1
6	-3.17	509	500	516	1
7	-2.83	513	503	518	1
8	-2.57	516	503	522	1
9	-2.37	518	509	524	1
10	-2.19	520	513	525	1
11	-2.04	522	516	526	1
12	-1.90	524	518	527	1
13	-1.77	525	520	529	1
14	-1.66	526	522	529	1
15	-1.55	527	524	531	1
16	-1.44	529	525	532	1
17	-1.34	529	526	533	1
18	-1.24	531	527	534	2
19	-1.14	532	527	536	2
20	-1.05	533	529	537	2
21	-0.96	534	529	538	2
22	-0.86	535	531	539	2
23	-0.77	536	532	540	2
24	-0.68	537	533	542	2
25	-0.58	538	534	543	2
26	-0.49	539	535	544	2

(cont'd)

Table D-9. 2006-07 NECAP Scale Conversion: Reading Grade 5 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
27	-0.39	540	536	545	3
28	-0.29	542	537	546	3
29	-0.19	543	538	548	3
30	-0.09	544	539	549	3
31	0.02	545	540	550	3
32	0.13	546	542	552	3
33	0.25	548	543	553	3
34	0.37	549	545	553	3
35	0.50	550	546	555	3
36	0.63	552	548	557	3
37	0.77	553	549	559	3
38	0.92	555	550	560	3
39	1.07	557	552	562	4
40	1.23	559	553	564	4
41	1.39	560	555	567	4
42	1.57	562	557	569	4
43	1.75	564	559	571	4
44	1.95	567	560	574	4
45	2.15	569	564	574	4
46	2.37	571	567	577	4
47	2.61	574	569	580	4
48	2.88	577	571	580	4
49	3.20	580	574	580	4
50	3.62	580	580	580	4
51	4.00	580	580	580	4
52	4.00	580	580	580	4

Table D-10. 2006-07 NECAP Scale Conversion: Reading Grade 6.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	600	600	600	1
1	-4.00	600	600	600	1
2	-4.00	600	600	600	1
3	-4.00	600	600	600	1
4	-4.00	600	600	604	1
5	-4.00	600	600	608	1
6	-3.64	604	600	611	1
7	-3.30	608	600	614	1
8	-3.04	611	600	617	1
9	-2.82	614	604	619	1
10	-2.64	616	608	621	1
11	-2.48	617	611	622	1
12	-2.33	619	614	624	1
13	-2.20	621	616	625	1
14	-2.07	622	617	626	1
15	-1.95	624	619	627	1
16	-1.84	625	621	628	1
17	-1.73	626	622	630	1
18	-1.62	627	624	631	1
19	-1.52	628	624	633	1
20	-1.42	630	625	634	2
21	-1.32	631	626	635	2
22	-1.22	632	627	637	2
23	-1.12	633	628	638	2
24	-1.02	634	630	639	2
25	-0.91	635	631	640	2
26	-0.81	637	632	642	2
27	-0.71	638	633	643	2
28	-0.60	639	634	644	2

(cont'd)

Table D-10. 2006-07 NECAP Scale Conversion: Reading Grade 6 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
29	-0.49	640	635	646	3
30	-0.38	642	637	647	3
31	-0.27	643	638	648	3
32	-0.15	644	639	650	3
33	-0.03	646	640	652	3
34	0.09	647	643	652	3
35	0.22	648	644	653	3
36	0.35	650	646	655	3
37	0.49	652	647	657	3
38	0.63	653	648	658	3
39	0.78	655	650	660	3
40	0.93	657	652	662	3
41	1.09	658	653	665	3
42	1.26	660	655	667	4
43	1.44	662	657	669	4
44	1.62	665	658	672	4
45	1.82	667	662	672	4
46	2.04	669	665	675	4
47	2.27	672	667	679	4
48	2.54	675	669	680	4
49	2.85	679	672	680	4
50	3.25	680	679	680	4
51	3.91	680	680	680	4
52	4.00	680	680	680	4

Table D-11. 2006-07 NECAP Scale Conversion: Reading Grade 7.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	700	700	700	1
1	-4.00	700	700	700	1
2	-4.00	700	700	700	1
3	-4.00	700	700	702	1
4	-4.00	700	700	707	1
5	-3.82	702	700	710	1
6	-3.43	707	700	712	1
7	-3.14	710	702	715	1
8	-2.92	712	702	718	1
9	-2.73	715	707	720	1
10	-2.56	717	710	721	1
11	-2.41	718	712	723	1
12	-2.27	720	715	724	1
13	-2.14	721	717	725	1
14	-2.02	723	718	727	1
15	-1.90	724	720	728	1
16	-1.79	725	721	729	1
17	-1.68	727	723	730	1
18	-1.57	728	724	731	1
19	-1.47	729	724	734	2
20	-1.37	730	725	735	2
21	-1.27	731	727	736	2
22	-1.16	733	728	737	2
23	-1.06	734	729	739	2
24	-0.96	735	730	739	2
25	-0.86	736	731	741	2
26	-0.75	737	733	742	2
27	-0.65	739	734	744	2
28	-0.54	739	735	745	2

(cont'd)

Table D-11. 2006-07 NECAP Scale Conversion: Reading Grade 7 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
29	-0.43	741	736	746	3
30	-0.32	742	737	748	3
31	-0.20	744	739	749	3
32	-0.08	745	739	751	3
33	0.04	746	741	753	3
34	0.17	748	744	753	3
35	0.30	749	745	754	3
36	0.44	751	746	756	3
37	0.58	753	748	758	3
38	0.72	754	749	759	3
39	0.87	756	751	761	3
40	1.02	758	753	763	3
41	1.18	759	754	765	3
42	1.35	761	756	768	4
43	1.52	763	758	770	4
44	1.69	765	759	772	4
45	1.88	768	763	772	4
46	2.07	770	765	775	4
47	2.28	772	768	778	4
48	2.52	775	770	780	4
49	2.79	778	772	780	4
50	3.14	780	778	780	4
51	3.72	780	780	780	4
52	4.00	780	780	780	4

Table D-12. 2006-07 NECAP Scale Conversion: Reading Grade 8.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	800	800	800	1
1	-4.00	800	800	800	1
2	-4.00	800	800	800	1
3	-4.00	800	800	800	1
4	-4.00	800	800	805	1
5	-4.00	800	800	808	1
6	-3.59	805	800	811	1
7	-3.29	808	800	813	1
8	-3.06	811	800	817	1
9	-2.87	813	805	818	1
10	-2.71	815	808	819	1
11	-2.57	817	811	821	1
12	-2.43	818	813	822	1
13	-2.31	819	815	823	1
14	-2.20	821	817	824	1
15	-2.09	822	818	826	1
16	-1.98	823	819	827	1
17	-1.88	824	821	827	1
18	-1.78	826	822	829	1
19	-1.68	827	822	831	1
20	-1.58	827	823	832	1
21	-1.48	829	824	833	2
22	-1.38	830	826	835	2
23	-1.29	831	827	836	2
24	-1.19	832	827	837	2
25	-1.09	833	829	838	2
26	-0.99	835	830	839	2
27	-0.89	836	831	841	2
28	-0.78	837	832	842	2
29	-0.68	838	833	843	2
30	-0.57	839	835	845	2

(cont'd)

Table D-12. 2006-07 NECAP Scale Conversion: Reading Grade 8 (cont'd).

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
31	-0.46	841	836	846	3
32	-0.35	842	837	847	3
33	-0.23	843	838	849	3
34	-0.12	845	841	849	3
35	0.00	846	842	850	3
36	0.13	847	843	852	3
37	0.26	849	845	854	3
38	0.39	850	846	855	3
39	0.52	852	847	857	3
40	0.66	854	849	858	3
41	0.81	855	850	861	3
42	0.96	857	852	863	3
43	1.12	858	854	865	3
44	1.28	861	855	867	4
45	1.45	863	858	867	4
46	1.64	865	861	870	4
47	1.84	867	863	873	4
48	2.06	870	865	876	4
49	2.32	873	867	880	4
50	2.65	876	873	880	4
51	3.17	880	876	880	4
52	4.00	880	880	880	4

Table D-13. 2006-07 NECAP Scale Conversion: Writing Grade 5.

Raw Score	θ	Scaled Score	Error Band Lower Bound	Error Band Upper Bound	Performance Level
0	-4.00	500	500	500	1
1	-4.00	500	500	500	1
2	-4.00	500	500	500	1
3	-4.00	500	500	500	1
4	-4.00	500	500	500	1
5	-4.00	500	500	500	1
6	-4.00	500	500	501	1
7	-4.00	500	500	506	1
8	-3.91	501	500	513	1
9	-3.44	506	500	516	1
10	-3.06	509	500	518	1
11	-2.74	513	501	521	1
12	-2.45	516	506	523	1
13	-2.18	518	509	526	1
14	-1.93	521	513	527	1
15	-1.68	523	516	530	1
16	-1.45	526	518	533	1
17	-1.21	527	521	536	1
18	-0.97	530	523	538	2
19	-0.72	533	526	541	2
20	-0.46	536	527	545	2
21	-0.18	538	530	548	2
22	0.12	541	533	551	3
23	0.43	545	536	554	3
24	0.76	548	538	559	3
25	1.11	551	541	563	3
26	1.47	554	545	567	3
27	1.84	559	548	571	4
28	2.23	563	551	576	4
29	2.64	567	554	580	4
30	3.07	571	563	580	4
31	3.55	576	567	580	4
32	4.00	580	571	580	4
33	4.00	580	576	580	4
34	4.00	580	580	580	4
35	4.00	580	580	580	4
36	4.00	580	580	580	4
37	4.00	580	580	580	4

Table D-14. 2006-07 NECAP Scale Conversion: Writing Grade 8.

Raw Score	θ	Scaled Score	Error Band		Performance Level
			Lower Bound	Upper Bound	
0	-4.00	800	800	800	1
1	-4.00	800	800	800	1
2	-4.00	800	800	800	1
3	-4.00	800	800	800	1
4	-4.00	800	800	800	1
5	-4.00	800	800	800	1
6	-4.00	800	800	805	1
7	-4.00	800	800	809	1
8	-3.50	805	800	815	1
9	-3.08	809	800	817	1
10	-2.76	812	800	819	1
11	-2.50	815	805	821	1
12	-2.27	817	809	823	1
13	-2.07	819	812	824	1
14	-1.87	821	815	826	1
15	-1.69	823	817	828	1
16	-1.51	824	819	830	1
17	-1.33	826	821	831	1
18	-1.15	828	823	833	1
19	-0.97	830	824	835	2
20	-0.78	831	826	838	2
21	-0.58	833	828	839	2
22	-0.38	835	830	842	2
23	-0.16	838	831	845	2
24	0.07	839	833	847	2
25	0.31	842	835	850	3
26	0.55	845	838	853	3
27	0.81	847	839	855	3
28	1.09	850	842	859	3
29	1.37	853	845	862	3
30	1.68	855	850	862	3
31	1.99	859	853	866	4
32	2.33	862	855	871	4
33	2.73	866	859	877	4
34	3.23	871	862	878	4
35	3.92	877	871	878	4
36	4.00	878	877	880	4
37	4.00	880	880	880	4

APPENDIX E

SCALED SCORE CUMULATIVE DENSITY FUNCTIONS

Table E-1. 2006-07 NECAP Scaled Score Cumulative Density Function: Math Grade 3.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
300	0.2%	0.2%	340	0.0%	35.5%
301	0.0%	0.2%	341	5.0%	40.5%
302	0.0%	0.2%	342	2.4%	42.9%
303	0.2%	0.4%	343	5.2%	48.1%
304	0.0%	0.4%	344	2.9%	51.0%
305	0.0%	0.4%	345	2.8%	53.7%
306	0.0%	0.4%	346	5.8%	59.6%
307	0.2%	0.6%	347	3.1%	62.7%
308	0.0%	0.6%	348	3.2%	65.9%
309	0.0%	0.6%	349	3.1%	69.0%
310	0.0%	0.6%	350	2.9%	71.9%
311	0.3%	0.9%	351	2.9%	74.8%
312	0.0%	0.9%	352	5.8%	80.6%
313	0.3%	1.2%	353	2.9%	83.5%
314	0.0%	1.2%	354	0.0%	83.5%
315	0.4%	1.6%	355	2.7%	86.2%
316	0.0%	1.6%	356	2.5%	88.7%
317	0.6%	2.2%	357	2.4%	91.1%
318	0.0%	2.2%	358	2.1%	93.2%
319	0.5%	2.7%	359	0.0%	93.2%
320	0.7%	3.4%	360	1.8%	95.0%
321	0.7%	4.1%	361	1.7%	96.7%
322	0.0%	4.1%	362	0.0%	96.7%
323	0.7%	4.8%	363	0.0%	96.7%
324	0.8%	5.6%	364	1.3%	98.0%
325	0.9%	6.5%	365	0.0%	98.0%
326	1.0%	7.4%	366	1.0%	99.0%
327	0.9%	8.4%	367	0.0%	99.0%
328	1.0%	9.4%	368	0.0%	99.0%
329	2.2%	11.6%	369	0.0%	99.0%
330	1.1%	12.7%	370	0.6%	99.6%
331	1.3%	14.0%	371	0.0%	99.6%
332	1.3%	15.3%	372	0.0%	99.6%
333	2.9%	18.2%	373	0.0%	99.6%
334	1.6%	19.8%	374	0.0%	99.6%
335	1.6%	21.4%	375	0.0%	99.6%
336	3.6%	25.0%	376	0.3%	99.9%
337	2.0%	27.0%	377	0.0%	99.9%
338	4.1%	31.2%	378	0.0%	99.9%
339	4.3%	35.5%	379	0.0%	99.9%
			380	0.1%	100.0%

cont'd

Table E-2. 2006-07 NECAP Scaled Score Cumulative Density Function: Math Grade 4.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
400	0.4%	0.4%	440	0.0%	38.4%
401	0.0%	0.4%	441	5.3%	43.7%
402	0.0%	0.4%	442	2.6%	46.3%
403	0.0%	0.4%	443	2.8%	49.0%
404	0.2%	0.6%	444	5.5%	54.6%
405	0.0%	0.6%	445	2.8%	57.4%
406	0.0%	0.6%	446	2.9%	60.3%
407	0.0%	0.6%	447	3.0%	63.3%
408	0.3%	0.9%	448	3.1%	66.5%
409	0.0%	0.9%	449	2.9%	69.4%
410	0.4%	1.3%	450	5.9%	75.3%
411	0.0%	1.3%	451	2.8%	78.2%
412	0.4%	1.7%	452	2.9%	81.1%
413	0.0%	1.7%	453	2.8%	83.8%
414	0.5%	2.2%	454	2.6%	86.4%
415	0.0%	2.2%	455	0.0%	86.4%
416	0.6%	2.8%	456	2.5%	88.9%
417	0.0%	2.8%	457	2.3%	91.3%
418	0.7%	3.5%	458	2.0%	93.3%
419	0.7%	4.2%	459	0.0%	93.3%
420	0.0%	4.2%	460	1.8%	95.0%
421	0.8%	5.0%	461	1.5%	96.6%
422	0.8%	5.8%	462	0.0%	96.6%
423	0.8%	6.6%	463	1.2%	97.8%
424	1.0%	7.6%	464	0.0%	97.8%
425	1.1%	8.7%	465	0.9%	98.7%
426	1.1%	9.8%	466	0.0%	98.7%
427	1.3%	11.2%	467	0.0%	98.7%
428	1.3%	12.4%	468	0.6%	99.3%
429	1.3%	13.7%	469	0.0%	99.3%
430	2.8%	16.5%	470	0.0%	99.3%
431	0.0%	16.5%	471	0.0%	99.3%
432	1.5%	18.1%	472	0.4%	99.7%
433	3.3%	21.3%	473	0.0%	99.7%
434	1.9%	23.2%	474	0.0%	99.7%
435	1.8%	25.1%	475	0.0%	99.7%
436	2.0%	27.0%	476	0.0%	99.7%
437	4.4%	31.4%	477	0.2%	99.9%
438	2.2%	33.6%	478	0.0%	99.9%
439	4.8%	38.4%	479	0.0%	99.9%
			480	0.1%	100.0%

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Table E-3. 2006-07 NECAP Scaled Score Cumulative Density Function: Math Grade 5.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
500	0.6%	0.6%	540	2.2%	38.9%
501	0.0%	0.6%	541	2.3%	41.2%
502	0.0%	0.6%	542	2.3%	43.5%
503	0.4%	1.0%	543	4.7%	48.2%
504	0.0%	1.0%	544	4.7%	52.8%
505	0.0%	1.0%	545	2.3%	55.2%
506	0.0%	1.0%	546	4.5%	59.6%
507	0.0%	1.0%	547	2.3%	61.9%
508	0.0%	1.0%	548	4.6%	66.6%
509	0.0%	1.0%	549	2.3%	68.9%
510	0.6%	1.6%	550	4.4%	73.3%
511	0.0%	1.6%	551	2.1%	75.5%
512	0.0%	1.6%	552	4.0%	79.5%
513	0.0%	1.6%	553	4.0%	83.5%
514	0.7%	2.3%	554	0.0%	83.5%
515	0.0%	2.3%	555	3.7%	87.2%
516	0.0%	2.3%	556	1.7%	88.8%
517	0.9%	3.2%	557	1.7%	90.5%
518	0.0%	3.2%	558	1.5%	92.1%
519	0.0%	3.2%	559	1.4%	93.4%
520	1.0%	4.2%	560	1.4%	94.8%
521	0.0%	4.2%	561	1.1%	95.9%
522	1.2%	5.4%	562	1.0%	96.9%
523	1.2%	6.6%	563	0.0%	96.9%
524	0.0%	6.6%	564	0.8%	97.7%
525	1.3%	7.9%	565	0.7%	98.5%
526	1.4%	9.3%	566	0.0%	98.5%
527	0.0%	9.3%	567	0.6%	99.1%
528	1.5%	10.8%	568	0.0%	99.1%
529	1.5%	12.3%	569	0.0%	99.1%
530	1.6%	14.0%	570	0.4%	99.5%
531	1.8%	15.8%	571	0.0%	99.5%
532	1.8%	17.6%	572	0.0%	99.5%
533	1.9%	19.4%	573	0.3%	99.7%
534	2.0%	21.4%	574	0.0%	99.7%
535	2.0%	23.4%	575	0.0%	99.7%
536	2.1%	25.5%	576	0.0%	99.7%
537	4.4%	29.9%	577	0.2%	99.9%
538	2.2%	32.1%	578	0.0%	99.9%
539	4.6%	36.6%	579	0.0%	99.9%
			580	0.1%	100.0%

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Table E-4. 2006-07 NECAP Scaled Score Cumulative Density Function: Math Grade 6.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
600	1.4%	1.4%	640	2.0%	39.8%
601	0.0%	1.4%	641	4.2%	43.9%
602	0.0%	1.4%	642	2.1%	46.0%
603	0.0%	1.4%	643	4.3%	50.3%
604	0.0%	1.4%	644	2.2%	52.5%
605	0.0%	1.4%	645	4.2%	56.7%
606	0.0%	1.4%	646	2.3%	59.0%
607	0.0%	1.4%	647	4.5%	63.5%
608	0.0%	1.4%	648	4.2%	67.7%
609	0.8%	2.2%	649	2.1%	69.8%
610	0.0%	2.2%	650	4.1%	73.9%
611	0.0%	2.2%	651	2.0%	75.9%
612	0.0%	2.2%	652	6.0%	81.9%
613	0.0%	2.2%	653	0.0%	81.9%
614	0.0%	2.2%	654	1.9%	83.8%
615	1.2%	3.3%	655	3.5%	87.3%
616	0.0%	3.3%	656	1.6%	88.9%
617	0.0%	3.3%	657	1.7%	90.5%
618	0.0%	3.3%	658	1.4%	91.9%
619	1.3%	4.6%	659	1.4%	93.3%
620	0.0%	4.6%	660	1.3%	94.6%
621	1.5%	6.1%	661	1.2%	95.8%
622	0.0%	6.1%	662	1.0%	96.7%
623	1.6%	7.7%	663	1.0%	97.7%
624	0.0%	7.7%	664	0.0%	97.7%
625	1.6%	9.3%	665	0.8%	98.5%
626	0.0%	9.3%	666	0.5%	99.0%
627	1.8%	11.1%	667	0.0%	99.0%
628	1.6%	12.7%	668	0.5%	99.5%
629	1.7%	14.4%	669	0.0%	99.5%
630	1.8%	16.2%	670	0.0%	99.5%
631	1.9%	18.1%	671	0.3%	99.8%
632	1.9%	19.9%	672	0.0%	99.8%
633	1.7%	21.7%	673	0.0%	99.8%
634	2.0%	23.7%	674	0.2%	99.9%
635	1.9%	25.6%	675	0.0%	99.9%
636	3.9%	29.4%	676	0.0%	99.9%
637	2.1%	31.6%	677	0.0%	99.9%
638	2.0%	33.6%	678	0.0%	99.9%
639	4.2%	37.7%	679	0.0%	99.9%
			680	0.1%	100.0%

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Table E-5. 2006-07 NECAP Scaled Score Cumulative Density Function: Math Grade 7.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
700	1.3%	1.3%	740	3.0%	44.6%
701	0.0%	1.3%	741	2.7%	47.3%
702	0.0%	1.3%	742	2.7%	50.0%
703	0.0%	1.3%	743	5.4%	55.4%
704	0.0%	1.3%	744	2.7%	58.1%
705	0.0%	1.3%	745	5.1%	63.2%
706	0.0%	1.3%	746	2.4%	65.6%
707	0.0%	1.3%	747	4.6%	70.2%
708	0.0%	1.3%	748	4.4%	74.6%
709	0.8%	2.1%	749	2.0%	76.6%
710	0.0%	2.1%	750	3.8%	80.3%
711	0.0%	2.1%	751	3.6%	83.9%
712	0.0%	2.1%	752	1.5%	85.4%
713	0.0%	2.1%	753	3.0%	88.4%
714	0.0%	2.1%	754	1.4%	89.8%
715	1.1%	3.2%	755	1.2%	91.0%
716	0.0%	3.2%	756	2.3%	93.3%
717	0.0%	3.2%	757	1.0%	94.3%
718	1.4%	4.5%	758	0.9%	95.2%
719	0.0%	4.5%	759	1.0%	96.1%
720	0.0%	4.5%	760	0.8%	96.9%
721	1.6%	6.1%	761	0.6%	97.5%
722	0.0%	6.1%	762	0.5%	98.1%
723	1.7%	7.8%	763	0.4%	98.5%
724	0.0%	7.8%	764	0.4%	98.9%
725	1.9%	9.7%	765	0.3%	99.2%
726	0.0%	9.7%	766	0.0%	99.2%
727	1.9%	11.6%	767	0.2%	99.5%
728	2.1%	13.7%	768	0.0%	99.5%
729	0.0%	13.7%	769	0.2%	99.7%
730	2.1%	15.8%	770	0.0%	99.7%
731	2.2%	18.0%	771	0.1%	99.8%
732	2.3%	20.3%	772	0.0%	99.8%
733	2.4%	22.7%	773	0.0%	99.8%
734	2.6%	25.2%	774	0.1%	99.9%
735	2.6%	27.8%	775	0.0%	99.9%
736	2.7%	30.5%	776	0.0%	99.9%
737	2.7%	33.2%	777	0.0%	99.9%
738	2.6%	35.8%	778	0.0%	99.9%
739	5.7%	41.5%	779	0.0%	99.9%
			780	0.1%	100.0%

cont'd

Table E-6. 2006-07 NECAP Scaled Score Cumulative Density Function: Math Grade 8.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
800	1.7%	1.7%	840	2.6%	48.2%
801	0.0%	1.7%	841	2.6%	50.9%
802	0.0%	1.7%	842	5.0%	55.9%
803	0.0%	1.7%	843	5.0%	60.9%
804	0.0%	1.7%	844	2.3%	63.1%
805	0.0%	1.7%	845	4.4%	67.6%
806	0.0%	1.7%	846	4.2%	71.8%
807	1.2%	2.9%	847	3.6%	75.4%
808	0.0%	2.9%	848	1.7%	77.1%
809	0.0%	2.9%	849	3.4%	80.6%
810	0.0%	2.9%	850	3.1%	83.7%
811	0.0%	2.9%	851	2.8%	86.5%
812	0.0%	2.9%	852	1.3%	87.8%
813	0.0%	2.9%	853	2.4%	90.2%
814	0.0%	2.9%	854	2.3%	92.6%
815	0.0%	2.9%	855	1.1%	93.6%
816	0.0%	2.9%	856	1.0%	94.6%
817	1.6%	4.5%	857	1.7%	96.3%
818	0.0%	4.5%	858	0.7%	97.0%
819	0.0%	4.5%	859	0.6%	97.6%
820	0.0%	4.5%	860	0.5%	98.1%
821	1.9%	6.4%	861	0.4%	98.6%
822	0.0%	6.4%	862	0.4%	98.9%
823	0.0%	6.4%	863	0.3%	99.2%
824	2.2%	8.6%	864	0.0%	99.2%
825	0.0%	8.6%	865	0.3%	99.5%
826	2.4%	11.0%	866	0.0%	99.5%
827	0.0%	11.0%	867	0.2%	99.7%
828	2.5%	13.5%	868	0.0%	99.7%
829	2.5%	16.0%	869	0.1%	99.8%
830	2.7%	18.7%	870	0.0%	99.8%
831	0.0%	18.7%	871	0.1%	99.9%
832	2.6%	21.3%	872	0.0%	99.9%
833	5.4%	26.7%	873	0.0%	99.9%
834	0.0%	26.7%	874	0.0%	99.9%
835	2.7%	29.4%	875	0.1%	100.0%
836	5.4%	34.8%	876	0.0%	100.0%
837	2.8%	37.6%	877	0.0%	100.0%
838	2.6%	40.1%	878	0.0%	100.0%
839	5.5%	45.6%	879	0.0%	100.0%
			880	0.0%	100.0%

cont'd

Table E-7. 2006-07 NECAP Scaled Score Cumulative Density Function: Reading Grade 3.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
300	0.4%	0.4%	340	2.4%	31.5%
301	0.0%	0.4%	341	2.6%	34.1%
302	0.0%	0.4%	342	3.0%	37.1%
303	0.0%	0.4%	343	2.8%	39.8%
304	0.0%	0.4%	344	3.2%	43.0%
305	0.2%	0.5%	345	3.4%	46.5%
306	0.0%	0.5%	346	3.5%	50.0%
307	0.0%	0.5%	347	3.7%	53.6%
308	0.0%	0.5%	348	4.0%	57.7%
309	0.2%	0.8%	349	4.3%	62.0%
310	0.0%	0.8%	350	4.4%	66.4%
311	0.0%	0.8%	351	0.0%	66.4%
312	0.0%	0.8%	352	4.6%	71.0%
313	0.3%	1.1%	353	4.3%	75.3%
314	0.0%	1.1%	354	0.0%	75.3%
315	0.5%	1.6%	355	4.4%	79.7%
316	0.0%	1.6%	356	4.3%	84.1%
317	0.6%	2.2%	357	0.0%	84.1%
318	0.0%	2.2%	358	4.1%	88.1%
319	0.6%	2.8%	359	0.0%	88.1%
320	0.0%	2.8%	360	0.0%	88.1%
321	0.8%	3.7%	361	3.6%	91.7%
322	0.9%	4.5%	362	0.0%	91.7%
323	1.0%	5.5%	363	3.2%	94.9%
324	0.0%	5.5%	364	0.0%	94.9%
325	1.0%	6.5%	365	0.0%	94.9%
326	1.0%	7.5%	366	0.0%	94.9%
327	1.1%	8.6%	367	2.4%	97.3%
328	1.1%	9.7%	368	0.0%	97.3%
329	1.1%	10.8%	369	0.0%	97.3%
330	1.1%	12.0%	370	0.0%	97.3%
331	1.3%	13.3%	371	0.0%	97.3%
332	1.3%	14.6%	372	1.6%	98.9%
333	1.4%	16.0%	373	0.0%	98.9%
334	1.6%	17.6%	374	0.0%	98.9%
335	1.6%	19.2%	375	0.0%	98.9%
336	1.8%	21.0%	376	0.0%	98.9%
337	3.7%	24.8%	377	0.0%	98.9%
338	2.2%	26.9%	378	0.0%	98.9%
339	2.2%	29.1%	379	0.0%	98.9%
			380	1.1%	100.0%

cont'd

Table E-8. 2006-07 NECAP Scaled Score Cumulative Density Function: Reading Grade 4.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
400	0.6%	0.6%	440	0.0%	31.6%
401	0.0%	0.6%	441	3.2%	34.9%
402	0.3%	0.9%	442	3.6%	38.4%
403	0.0%	0.9%	443	3.7%	42.1%
404	0.0%	0.9%	444	4.1%	46.2%
405	0.0%	0.9%	445	4.4%	50.6%
406	0.0%	0.9%	446	4.4%	55.1%
407	0.4%	1.4%	447	4.6%	59.7%
408	0.0%	1.4%	448	0.0%	59.7%
409	0.0%	1.4%	449	4.8%	64.5%
410	0.0%	1.4%	450	5.0%	69.5%
411	0.4%	1.8%	451	0.0%	69.5%
412	0.0%	1.8%	452	4.9%	74.4%
413	0.4%	2.2%	453	4.9%	79.2%
414	0.0%	2.2%	454	0.0%	79.2%
415	0.0%	2.2%	455	4.6%	83.8%
416	0.6%	2.8%	456	0.0%	83.8%
417	0.0%	2.8%	457	3.9%	87.8%
418	0.6%	3.4%	458	3.5%	91.3%
419	0.6%	4.0%	459	0.0%	91.3%
420	0.0%	4.0%	460	0.0%	91.3%
421	0.5%	4.6%	461	2.8%	94.0%
422	0.0%	4.6%	462	0.0%	94.0%
423	0.7%	5.2%	463	2.0%	96.1%
424	0.9%	6.1%	464	0.0%	96.1%
425	0.8%	6.9%	465	0.0%	96.1%
426	0.9%	7.8%	466	1.7%	97.7%
427	0.0%	7.8%	467	0.0%	97.7%
428	1.1%	8.9%	468	0.0%	97.7%
429	1.1%	10.0%	469	1.1%	98.9%
430	1.2%	11.2%	470	0.0%	98.9%
431	1.3%	12.5%	471	0.0%	98.9%
432	1.6%	14.1%	472	0.0%	98.9%
433	1.5%	15.7%	473	0.6%	99.5%
434	1.8%	17.4%	474	0.0%	99.5%
435	1.7%	19.2%	475	0.0%	99.5%
436	2.1%	21.3%	476	0.0%	99.5%
437	2.3%	23.7%	477	0.0%	99.5%
438	2.5%	26.1%	478	0.3%	99.8%
439	5.5%	31.6%	479	0.0%	99.8%
			480	0.2%	100.0%

cont'd

Table E-9. 2006-07 NECAP Scaled Score Cumulative Density Function: Reading Grade 5.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
500	0.4%	0.4%	540	3.4%	34.1%
501	0.0%	0.4%	541	0.0%	34.1%
502	0.0%	0.4%	542	3.4%	37.5%
503	0.3%	0.6%	543	3.9%	41.5%
504	0.0%	0.6%	544	4.2%	45.7%
505	0.0%	0.6%	545	4.5%	50.2%
506	0.0%	0.6%	546	4.9%	55.1%
507	0.0%	0.6%	547	0.0%	55.1%
508	0.0%	0.6%	548	5.0%	60.1%
509	0.4%	1.1%	549	5.1%	65.2%
510	0.0%	1.1%	550	5.0%	70.2%
511	0.0%	1.1%	551	0.0%	70.2%
512	0.0%	1.1%	552	4.9%	75.1%
513	0.5%	1.5%	553	4.7%	79.8%
514	0.0%	1.5%	554	0.0%	79.8%
515	0.0%	1.5%	555	4.1%	83.8%
516	0.6%	2.1%	556	0.0%	83.8%
517	0.0%	2.1%	557	3.4%	87.3%
518	0.8%	2.9%	558	0.0%	87.3%
519	0.0%	2.9%	559	3.0%	90.3%
520	0.9%	3.7%	560	2.7%	93.0%
521	0.0%	3.7%	561	0.0%	93.0%
522	0.9%	4.6%	562	1.9%	94.9%
523	0.0%	4.6%	563	0.0%	94.9%
524	0.9%	5.5%	564	1.5%	96.4%
525	1.1%	6.6%	565	0.0%	96.4%
526	1.2%	7.8%	566	0.0%	96.4%
527	1.1%	8.9%	567	1.2%	97.6%
528	0.0%	8.9%	568	0.0%	97.6%
529	2.5%	11.4%	569	0.8%	98.4%
530	0.0%	11.4%	570	0.0%	98.4%
531	1.4%	12.9%	571	0.6%	99.1%
532	1.4%	14.3%	572	0.0%	99.1%
533	1.7%	16.0%	573	0.0%	99.1%
534	1.9%	17.9%	574	0.4%	99.5%
535	2.0%	19.9%	575	0.0%	99.5%
536	2.3%	22.2%	576	0.0%	99.5%
537	2.6%	24.8%	577	0.2%	99.7%
538	2.9%	27.7%	578	0.0%	99.7%
539	3.1%	30.7%	579	0.0%	99.7%
			580	0.3%	100.0%

cont'd

Table E-10. 2006-07 NECAP Scaled Score Cumulative Density Function: Reading Grade 6.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
600	0.5%	0.5%	640	3.4%	34.9%
601	0.0%	0.5%	641	0.0%	34.9%
602	0.0%	0.5%	642	3.7%	38.6%
603	0.0%	0.5%	643	4.0%	42.6%
604	0.3%	0.8%	644	4.4%	47.0%
605	0.0%	0.8%	645	0.0%	47.0%
606	0.0%	0.8%	646	4.5%	51.5%
607	0.0%	0.8%	647	4.6%	56.1%
608	0.4%	1.2%	648	4.7%	60.8%
609	0.0%	1.2%	649	0.0%	60.8%
610	0.0%	1.2%	650	5.0%	65.8%
611	0.4%	1.5%	651	0.0%	65.8%
612	0.0%	1.5%	652	4.6%	70.5%
613	0.0%	1.5%	653	4.6%	75.1%
614	0.5%	2.1%	654	0.0%	75.1%
615	0.0%	2.1%	655	4.5%	79.6%
616	0.5%	2.6%	656	0.0%	79.6%
617	0.5%	3.1%	657	4.0%	83.6%
618	0.0%	3.1%	658	3.7%	87.3%
619	0.7%	3.8%	659	0.0%	87.3%
620	0.0%	3.8%	660	3.1%	90.4%
621	0.8%	4.5%	661	0.0%	90.4%
622	0.8%	5.3%	662	2.5%	92.9%
623	0.0%	5.3%	663	0.0%	92.9%
624	1.0%	6.3%	664	0.0%	92.9%
625	1.0%	7.3%	665	2.2%	95.1%
626	1.1%	8.4%	666	0.0%	95.1%
627	1.2%	9.6%	667	1.6%	96.7%
628	1.3%	10.9%	668	0.0%	96.7%
629	0.0%	10.9%	669	1.2%	98.0%
630	1.5%	12.4%	670	0.0%	98.0%
631	1.5%	13.9%	671	0.0%	98.0%
632	1.8%	15.7%	672	0.9%	98.8%
633	2.0%	17.7%	673	0.0%	98.8%
634	2.2%	19.9%	674	0.0%	98.8%
635	2.5%	22.4%	675	0.6%	99.4%
636	0.0%	22.4%	676	0.0%	99.4%
637	2.6%	25.0%	677	0.0%	99.4%
638	3.1%	28.1%	678	0.0%	99.4%
639	3.4%	31.5%	679	0.4%	99.7%
			680	0.3%	100.0%

cont'd

Table E-11. 2006-07 NECAP Scaled Score Cumulative Density Function: Reading Grade 7.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
700	0.2%	0.2%	740	0.0%	36.0%
701	0.0%	0.2%	741	3.8%	39.9%
702	0.2%	0.4%	742	4.0%	43.9%
703	0.0%	0.4%	743	0.0%	43.9%
704	0.0%	0.4%	744	4.2%	48.1%
705	0.0%	0.4%	745	4.5%	52.6%
706	0.0%	0.4%	746	4.8%	57.5%
707	0.3%	0.7%	747	0.0%	57.5%
708	0.0%	0.7%	748	4.8%	62.2%
709	0.0%	0.7%	749	4.7%	67.0%
710	0.3%	1.0%	750	0.0%	67.0%
711	0.0%	1.0%	751	4.7%	71.7%
712	0.4%	1.3%	752	0.0%	71.7%
713	0.0%	1.3%	753	4.3%	76.0%
714	0.0%	1.3%	754	4.1%	80.1%
715	0.4%	1.8%	755	0.0%	80.1%
716	0.0%	1.8%	756	3.7%	83.8%
717	0.5%	2.3%	757	0.0%	83.8%
718	0.6%	2.9%	758	3.3%	87.1%
719	0.0%	2.9%	759	2.9%	90.0%
720	0.7%	3.6%	760	0.0%	90.0%
721	0.8%	4.4%	761	2.4%	92.4%
722	0.0%	4.4%	762	0.0%	92.4%
723	0.9%	5.3%	763	2.0%	94.3%
724	1.1%	6.4%	764	0.0%	94.3%
725	1.3%	7.7%	765	1.6%	95.9%
726	0.0%	7.7%	766	0.0%	95.9%
727	1.2%	8.9%	767	0.0%	95.9%
728	1.4%	10.4%	768	1.3%	97.2%
729	1.5%	11.9%	769	0.0%	97.2%
730	1.7%	13.6%	770	1.0%	98.3%
731	2.0%	15.6%	771	0.0%	98.3%
732	0.0%	15.6%	772	0.7%	99.0%
733	2.3%	17.9%	773	0.0%	99.0%
734	2.5%	20.4%	774	0.0%	99.0%
735	2.5%	23.0%	775	0.5%	99.5%
736	3.0%	25.9%	776	0.0%	99.5%
737	3.2%	29.1%	777	0.0%	99.5%
738	0.0%	29.1%	778	0.3%	99.8%
739	6.9%	36.0%	779	0.0%	99.8%
			780	0.2%	100.0%

cont'd

Table E-12. 2006-07 NECAP Scaled Score Cumulative Density Function: Reading Grade 8.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
800	0.5%	0.5%	840	0.0%	36.8%
801	0.0%	0.5%	841	3.7%	40.5%
802	0.0%	0.5%	842	4.0%	44.5%
803	0.0%	0.5%	843	4.3%	48.8%
804	0.0%	0.5%	844	0.0%	48.8%
805	0.3%	0.7%	845	4.4%	53.2%
806	0.0%	0.7%	846	4.5%	57.6%
807	0.0%	0.7%	847	4.6%	62.2%
808	0.3%	1.1%	848	0.0%	62.2%
809	0.0%	1.1%	849	4.5%	66.8%
810	0.0%	1.1%	850	4.4%	71.2%
811	0.4%	1.5%	851	0.0%	71.2%
812	0.0%	1.5%	852	4.1%	75.3%
813	0.5%	2.0%	853	0.0%	75.3%
814	0.0%	2.0%	854	4.1%	79.5%
815	0.5%	2.5%	855	3.7%	83.2%
816	0.0%	2.5%	856	0.0%	83.2%
817	0.7%	3.2%	857	3.5%	86.7%
818	0.6%	3.8%	858	3.0%	89.7%
819	0.8%	4.6%	859	0.0%	89.7%
820	0.0%	4.6%	860	0.0%	89.7%
821	0.8%	5.4%	861	2.8%	92.5%
822	0.9%	6.3%	862	0.0%	92.5%
823	1.0%	7.4%	863	2.1%	94.6%
824	1.0%	8.3%	864	0.0%	94.6%
825	0.0%	8.3%	865	1.7%	96.3%
826	1.2%	9.5%	866	0.0%	96.3%
827	2.8%	12.3%	867	1.3%	97.7%
828	0.0%	12.3%	868	0.0%	97.7%
829	1.6%	13.9%	869	0.0%	97.7%
830	1.7%	15.6%	870	1.0%	98.6%
831	1.9%	17.5%	871	0.0%	98.6%
832	2.0%	19.5%	872	0.0%	98.6%
833	2.3%	21.8%	873	0.7%	99.3%
834	0.0%	21.8%	874	0.0%	99.3%
835	2.6%	24.3%	875	0.0%	99.3%
836	3.0%	27.3%	876	0.4%	99.7%
837	2.9%	30.2%	877	0.0%	99.7%
838	3.3%	33.4%	878	0.0%	99.7%
839	3.3%	36.8%	879	0.0%	99.7%
			880	0.3%	100.0%

cont'd

Table E-13. 2006-07 NECAP Scaled Score Cumulative Density Function: Writing Grade 5.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
500	1.1%	1.1%	540	0.0%	49.8%
501	0.4%	1.6%	541	8.1%	57.9%
502	0.0%	1.6%	542	0.0%	57.9%
503	0.0%	1.6%	543	0.0%	57.9%
504	0.0%	1.6%	544	0.0%	57.9%
505	0.0%	1.6%	545	8.1%	66.0%
506	0.7%	2.3%	546	0.0%	66.0%
507	0.0%	2.3%	547	0.0%	66.0%
508	0.0%	2.3%	548	8.0%	74.0%
509	0.8%	3.1%	549	0.0%	74.0%
510	0.0%	3.1%	550	0.0%	74.0%
511	0.0%	3.1%	551	6.9%	80.9%
512	0.0%	3.1%	552	0.0%	80.9%
513	1.2%	4.3%	553	0.0%	80.9%
514	0.0%	4.3%	554	5.5%	86.4%
515	0.0%	4.3%	555	0.0%	86.4%
516	1.6%	5.8%	556	0.0%	86.4%
517	0.0%	5.8%	557	0.0%	86.4%
518	2.1%	7.9%	558	0.0%	86.4%
519	0.0%	7.9%	559	4.2%	90.6%
520	0.0%	7.9%	560	0.0%	90.6%
521	2.4%	10.4%	561	0.0%	90.6%
522	0.0%	10.4%	562	0.0%	90.6%
523	2.9%	13.3%	563	3.4%	94.0%
524	0.0%	13.3%	564	0.0%	94.0%
525	0.0%	13.3%	565	0.0%	94.0%
526	3.9%	17.2%	566	0.0%	94.0%
527	4.7%	21.9%	567	2.2%	96.2%
528	0.0%	21.9%	568	0.0%	96.2%
529	0.0%	21.9%	569	0.0%	96.2%
530	5.7%	27.6%	570	0.0%	96.2%
531	0.0%	27.6%	571	1.5%	97.7%
532	0.0%	27.6%	572	0.0%	97.7%
533	6.7%	34.3%	573	0.0%	97.7%
534	0.0%	34.3%	574	0.0%	97.7%
535	0.0%	34.3%	575	0.0%	97.7%
536	7.5%	41.9%	576	1.0%	98.7%
537	0.0%	41.9%	577	0.0%	98.7%
538	8.0%	49.8%	578	0.0%	98.7%
539	0.0%	49.8%	579	0.0%	98.7%
			580	1.3%	100.0%

cont'd

Table E-14. 2006-07 NECAP Scaled Score Cumulative Density Function: Writing Grade 8.

Scale Score	Percentage	Cumulative Percentage	Scale Score	Percentage	Cumulative Percentage
800	1.7%	1.7%	840	0.0%	56.7%
801	0.0%	1.7%	841	0.0%	56.7%
802	0.0%	1.7%	842	7.0%	63.8%
803	0.0%	1.7%	843	0.0%	63.8%
804	0.0%	1.7%	844	0.0%	63.8%
805	0.5%	2.2%	845	7.0%	70.8%
806	0.0%	2.2%	846	0.0%	70.8%
807	0.0%	2.2%	847	6.1%	76.9%
808	0.0%	2.2%	848	0.0%	76.9%
809	0.6%	2.8%	849	0.0%	76.9%
810	0.0%	2.8%	850	5.4%	82.3%
811	0.0%	2.8%	851	0.0%	82.3%
812	0.9%	3.7%	852	0.0%	82.3%
813	0.0%	3.7%	853	4.6%	86.9%
814	0.0%	3.7%	854	0.0%	86.9%
815	1.1%	4.8%	855	3.9%	90.8%
816	0.0%	4.8%	856	0.0%	90.8%
817	1.2%	6.0%	857	0.0%	90.8%
818	0.0%	6.0%	858	0.0%	90.8%
819	1.5%	7.5%	859	3.1%	93.9%
820	0.0%	7.5%	860	0.0%	93.9%
821	1.9%	9.5%	861	0.0%	93.9%
822	0.0%	9.5%	862	2.2%	96.1%
823	2.2%	11.6%	863	0.0%	96.1%
824	2.6%	14.3%	864	0.0%	96.1%
825	0.0%	14.3%	865	0.0%	96.1%
826	2.9%	17.2%	866	1.6%	97.7%
827	0.0%	17.2%	867	0.0%	97.7%
828	3.6%	20.8%	868	0.0%	97.7%
829	0.0%	20.8%	869	0.0%	97.7%
830	4.4%	25.3%	870	0.0%	97.7%
831	5.0%	30.3%	871	1.1%	98.8%
832	0.0%	30.3%	872	0.0%	98.8%
833	5.8%	36.0%	873	0.0%	98.8%
834	0.0%	36.0%	874	0.0%	98.8%
835	6.3%	42.3%	875	0.0%	98.8%
836	0.0%	42.3%	876	0.0%	98.8%
837	0.0%	42.3%	877	0.6%	99.5%
838	7.1%	49.4%	878	0.4%	99.8%
839	7.3%	56.7%	879	0.0%	99.8%
			880	0.2%	100.0%

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APPENDIX F

SUMMARY STATISTICS OF DIFFICULTY AND DISCRIMINATION INDICES

Table F-1: 2006-07 NECAP Item Difficulty and Discrimination Indices by Grade, Subject, and Test Form.

Grade	Subject	Form	N Items	Difficulty		Discrimination	
				Mean	SD	Mean	SD
3	Math	00	55	0.66	0.18	0.43	0.08
		01	10	0.64	0.19	0.39	0.07
		02	10	0.65	0.15	0.45	0.07
		03	10	0.64	0.13	0.45	0.09
		04	10	0.67	0.14	0.48	0.04
		05	10	0.62	0.18	0.45	0.08
		06	10	0.72	0.18	0.42	0.10
		07	10	0.65	0.18	0.41	0.08
		08	10	0.66	0.15	0.44	0.07
		09	10	0.64	0.13	0.44	0.07
	Reading	00	34	0.71	0.12	0.46	0.08
		01	17	0.63	0.14	0.44	0.10
		02	17	0.67	0.14	0.46	0.10
		03	17	0.72	0.13	0.49	0.08
4	Math	00	48	0.54	0.16	0.43	0.10
		01	11	0.44	0.16	0.42	0.14
		02	11	0.47	0.16	0.45	0.12
		03	11	0.46	0.21	0.44	0.05
		04	11	0.47	0.18	0.44	0.14
		05	11	0.48	0.13	0.43	0.12
		06	11	0.50	0.20	0.43	0.12
		07	11	0.45	0.17	0.43	0.14
		08	11	0.47	0.16	0.46	0.12
		09	11	0.47	0.21	0.44	0.07
	Reading	00	34	0.66	0.15	0.43	0.10
		01	17	0.60	0.13	0.44	0.12
		02	17	0.66	0.15	0.42	0.12
		03	17	0.65	0.16	0.43	0.15
5	Math	00	48	0.54	0.16	0.43	0.1
		01	11	0.44	0.16	0.42	0.14
		02	11	0.47	0.16	0.45	0.12
		03	11	0.46	0.21	0.44	0.05
		04	11	0.47	0.18	0.44	0.14
		05	11	0.48	0.13	0.43	0.12
		06	11	0.50	0.2	0.43	0.12
		07	11	0.45	0.17	0.43	0.14
		08	11	0.47	0.16	0.46	0.12
		09	11	0.47	0.21	0.44	0.07
	Reading	00	34	0.66	0.15	0.43	0.1
		01	17	0.60	0.13	0.44	0.12
		02	17	0.66	0.15	0.42	0.12
		03	17	0.65	0.16	0.43	0.15
	Writing	01	17	0.74	0.20	0.38	0.12

cont'd

Table F-1: Item Difficulty and Discrimination Indices by Grade, Subject, and Test Form.

Grade	Subject	Form	N Items	Difficulty		Discrimination	
				Mean	SD	Mean	SD
6	Math	00	48	0.53	0.16	0.45	0.13
		01	11	0.50	0.17	0.48	0.14
		02	11	0.48	0.15	0.47	0.13
		03	11	0.47	0.13	0.52	0.1
		04	11	0.50	0.12	0.44	0.13
		05	11	0.48	0.16	0.46	0.14
		06	11	0.51	0.18	0.44	0.14
		07	11	0.51	0.17	0.48	0.14
		08	11	0.49	0.14	0.47	0.13
		09	11	0.47	0.13	0.52	0.09
	Reading	00	34	0.69	0.16	0.43	0.11
		01	17	0.62	0.14	0.45	0.13
		02	17	0.69	0.20	0.44	0.11
		03	17	0.71	0.16	0.45	0.11
7	Math	00	48	0.48	0.19	0.40	0.12
		01	11	0.42	0.18	0.42	0.11
		02	11	0.48	0.18	0.43	0.12
		03	11	0.44	0.20	0.41	0.19
		04	11	0.44	0.16	0.45	0.12
		05	11	0.47	0.17	0.45	0.12
		06	11	0.47	0.25	0.4	0.11
		07	11	0.42	0.18	0.41	0.11
		08	11	0.48	0.18	0.44	0.13
		09	11	0.44	0.20	0.42	0.19
	Reading	00	34	0.67	0.17	0.42	0.12
		01	17	0.64	0.20	0.42	0.13
		02	17	0.67	0.11	0.45	0.13
		03	17	0.69	0.15	0.44	0.12
8	Math	00	48	0.46	0.18	0.42	0.12
		01	11	0.44	0.17	0.49	0.13
		02	11	0.48	0.18	0.46	0.11
		03	11	0.46	0.19	0.46	0.08
		04	11	0.45	0.14	0.42	0.18
		05	11	0.48	0.23	0.42	0.09
		06	11	0.51	0.13	0.51	0.11
		07	11	0.45	0.17	0.49	0.13
		08	11	0.47	0.18	0.47	0.11
		09	11	0.45	0.18	0.46	0.08
	Reading	00	34	0.70	0.16	0.44	0.12
		01	17	0.63	0.14	0.45	0.14
		02	17	0.71	0.16	0.45	0.12
		03	17	0.69	0.14	0.46	0.11
	Writing	01	17	0.75	0.16	0.42	0.14

Table F-2: 2006-07 NECAP Item Difficulty and Discrimination Index Means and Standard Deviations by Grade, Subject, and Item Type.

Grade	Subject	Statistic[1]	All[2]	MC[2]	OR[2]
3	Math	Diff	0.66 (0.16)	0.70 (0.14)	0.58 (0.17)
		Disc	0.44 (0.08)	0.42 (0.07)	0.46 (0.08)
		N	145	89	56
	Reading	Diff	0.69 (0.13)	0.71 (0.11)	0.57 (0.14)
		Disc	0.46 (0.09)	0.44 (0.08)	0.56 (0.07)
		N	85	70	15
4	Math	Diff	0.63 (0.20)	0.65 (0.21)	0.61 (0.18)
		Disc	0.41 (0.11)	0.38 (0.11)	0.47 (0.09)
		N	145	89	56
	Reading	Diff	0.67 (0.14)	0.69 (0.13)	0.56 (0.12)
		Disc	0.44 (0.08)	0.42 (0.07)	0.53 (0.07)
		N	85	70	15
5	Math	Diff	0.49 (0.17)	0.56 (0.15)	0.40 (0.16)
		Disc	0.44 (0.11)	0.39 (0.08)	0.51 (0.1)
		N	147	86	61
	Reading	Diff	0.64 (0.15)	0.69 (0.12)	0.41 (0.05)
		Disc	0.43 (0.12)	0.39 (0.09)	0.61 (0.05)
		N	85	70	15
	Writing	Diff	0.74 (0.20)	0.80 (0.08)	0.67 (0.28)
		Disc	0.38 (0.12)	0.34 (0.06)	0.44 (0.16)
		N	17	10	7
6	Math	Diff	0.50 (0.15)	0.55 (0.14)	0.43 (0.14)
		Disc	0.47 (0.13)	0.40 (0.11)	0.56 (0.10)
		N	147	86	61
	Reading	Diff	0.68 (0.16)	0.73 (0.13)	0.44 (0.07)
		Disc	0.44 (0.11)	0.4 (0.09)	0.61 (0.04)
		N	85	70	15
7	Math	Diff	0.46 (0.19)	0.54 (0.17)	0.34 (0.14)
		Disc	0.42 (0.13)	0.35 (0.1)	0.51 (0.11)
		N	147	86	61
	Reading	Diff	0.67 (0.16)	0.71 (0.14)	0.46 (0.05)
		Disc	0.43 (0.13)	0.39 (0.08)	0.65 (0.05)
		N	85	70	15
8	Math	Diff	0.46 (0.18)	0.53 (0.14)	0.37 (0.18)
		Disc	0.45 (0.12)	0.39 (0.09)	0.54 (0.10)
		N	147	86	61
	Reading	Diff	0.69 (0.15)	0.73 (0.14)	0.50 (0.05)
		Disc	0.45 (0.12)	0.40 (0.07)	0.65 (0.02)
		N	85	70	15
	Writing	Diff	0.75 (0.16)	0.78 (0.08)	0.71 (0.23)
		Disc	0.42 (0.14)	0.35 (0.04)	0.52 (0.18)
		N	17	10	7

[1]Diff = Difficulty (p-value); Disc = Discrimination (point-biserial correlation); N = number of items
[2]All = MC and OR; MC = multiple-choice; OR = open response

Table F-3: 2006-07 NECAP Frequencies, Relative Percentages, and Cumulative Percentages of Difficulty and Discrimination Indices by Grade, Subject, and Index Range.

Grade	Subject	Range	Difficulty			Discrimination		
			N	%	Cum%	N	%	Cum%
3	Math	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	0	0.0	0.0
		0.00 - 0.09	0	0.0	0.0	0	0.0	0.0
		0.10 - 0.19	0	0.0	0.0	0	0.0	0.0
		0.20 - 0.29	13	2.0	2.0	44	6.9	6.9
		0.30 - 0.39	73	11.4	13.4	152	23.8	30.6
		0.40 - 0.49	40	6.3	19.7	280	43.8	74.4
		0.50 - 0.59	83	13.0	32.7	164	25.6	100.0
		0.60 - 0.69	117	18.3	50.9	0	0.0	100.0
		0.70 - 0.79	156	24.4	75.3	0	0.0	100.0
		0.80 - 0.89	137	21.4	96.7	0	0.0	100.0
		0.90 - 0.99	21	3.3	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0
3	Reading	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	0	0.0	0.0
		0.00 - 0.09	0	0.0	0.0	0	0.0	0.0
		0.10 - 0.19	0	0.0	0.0	0	0.0	0.0
		0.20 - 0.29	0	0.0	0.0	3	0.8	0.8
		0.30 - 0.39	1	0.3	0.3	100	25.6	26.3
		0.40 - 0.49	15	3.8	4.1	126	32.2	58.6
		0.50 - 0.59	80	20.5	24.6	149	38.1	96.7
		0.60 - 0.69	69	17.6	42.2	13	3.3	100.0
		0.70 - 0.79	134	34.3	76.5	0	0.0	100.0
		0.80 - 0.89	82	21.0	97.4	0	0.0	100.0
		0.90 - 0.99	10	2.6	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0

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Table F-3: 2006-07 NECAP Frequencies, Relative Percentages, and Cumulative Percentages of Difficulty and Discrimination Indices by Grade, Subject, and Index Range.

			Difficulty			Discrimination		
Grade	Subject	Range	N	%	Cum%	N	%	Cum%
4	Math	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	2	0.3	0.3
		0.00 - 0.09	0	0.0	0.0	10	1.6	1.9
		0.10 - 0.19	11	1.7	1.7	2	0.3	2.2
		0.20 - 0.29	26	4.1	5.8	47	7.3	9.5
		0.30 - 0.39	75	11.7	17.5	177	27.7	37.2
		0.40 - 0.49	66	10.3	27.8	272	42.5	79.7
		0.50 - 0.59	115	18.0	45.8	127	19.8	99.5
		0.60 - 0.69	85	13.3	59.1	3	0.5	100.0
		0.70 - 0.79	104	16.3	75.3	0	0.0	100.0
		0.80 - 0.89	134	20.9	96.3	0	0.0	100.0
		0.90 - 0.99	24	3.8	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0
4	Reading	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	0	0.0	0.0
		0.00 - 0.09	0	0.0	0.0	0	0.0	0.0
		0.10 - 0.19	0	0.0	0.0	0	0.0	0.0
		0.20 - 0.29	0	0.0	0.0	12	3.1	3.1
		0.30 - 0.39	3	0.8	0.8	125	32.0	35.0
		0.40 - 0.49	63	16.1	16.9	170	43.5	78.5
		0.50 - 0.59	50	12.8	29.7	63	16.1	94.6
		0.60 - 0.69	73	18.7	48.3	21	5.4	100.0
		0.70 - 0.79	112	28.6	77.0	0	0.0	100.0
		0.80 - 0.89	69	17.6	94.6	0	0.0	100.0
		0.90 - 0.99	21	5.4	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0

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Table F-3: 2006-07 NECAP Frequencies, Relative Percentages, and Cumulative Percentages of Difficulty and Discrimination Indices by Grade, Subject, and Index Range.

Grade	Subject	Range	Difficulty			Discrimination		
			N	%	Cum%	N	%	Cum%
5	Math	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	0	0.0	0.0
		0.00 - 0.09	1	0.2	0.2	0	0.0	0.0
		0.10 - 0.19	1	0.2	0.3	0	0.0	0.0
		0.20 - 0.29	37	6.4	6.7	46	7.9	7.9
		0.30 - 0.39	65	11.2	18.0	158	27.3	35.2
		0.40 - 0.49	175	30.2	48.2	229	39.6	74.8
		0.50 - 0.59	124	21.4	69.6	128	22.1	96.9
		0.60 - 0.69	53	9.2	78.8	17	2.9	99.8
		0.70 - 0.79	70	12.1	90.8	1	0.2	100.0
		0.80 - 0.89	53	9.2	100.0	0	0.0	100.0
		0.90 - 0.99	0	0.0	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0
5	Reading	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	0	0.0	0.0
		0.00 - 0.09	0	0.0	0.0	0	0.0	0.0
		0.10 - 0.19	0	0.0	0.0	11	2.8	2.8
		0.20 - 0.29	0	0.0	0.0	6	1.5	4.3
		0.30 - 0.39	12	3.1	3.1	155	39.6	44.0
		0.40 - 0.49	60	15.3	18.4	106	27.1	71.1
		0.50 - 0.59	58	14.8	33.2	86	22.0	93.1
		0.60 - 0.69	50	12.8	46.0	27	6.9	100.0
		0.70 - 0.79	142	36.3	82.4	0	0.0	100.0
		0.80 - 0.89	69	17.6	100.0	0	0.0	100.0
		0.90 - 0.99	0	0.0	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0
5	Writing	< -0.30	0	0	0	0	0	0
		-0.30 - -0.21	0	0	0	0	0	0
		-0.20 - -0.11	0	0	0	0	0	0
		-0.10 - -0.01	0	0	0	0	0	0
		0.00 - 0.09	0	0	0	0	0	0
		0.10 - 0.19	0	0	0	0	0	0
		0.20 - 0.29	0	0	0	4	23.5	23.5
		0.30 - 0.39	0	0	0	7	41.2	64.7
		0.40 - 0.49	3	17.6	17.6	2	11.8	76.5
		0.50 - 0.59	1	5.9	23.5	2	11.8	88.3
		0.60 - 0.69	2	11.8	35.3	2	11.8	100.1
		0.70 - 0.79	3	17.6	52.9	0	0	100.1
		0.80 - 0.89	3	17.6	70.5	0	0	100.1
		0.90 - 0.99	5	29.4	99.9	0	0	100.1
		>= 1.00	0	0	99.9	0	0	100.1

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Table F-3: 2006-07 NECAP Frequencies, Relative Percentages, and Cumulative Percentages of Difficulty and Discrimination Indices by Grade, Subject, and Index Range.

Grade	Subject	Range	Difficulty			Discrimination		
			N	%	Cum%	N	%	Cum%
6	Math	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	0	0.0	0.0
		0.00 - 0.09	0	0.0	0.0	0	0.0	0.0
		0.10 - 0.19	12	2.1	2.1	1	0.2	0.2
		0.20 - 0.29	30	5.2	7.3	94	16.2	16.4
		0.30 - 0.39	62	10.7	18.0	109	18.8	35.2
		0.40 - 0.49	154	26.6	44.6	143	24.7	59.9
		0.50 - 0.59	98	16.9	61.5	158	27.3	87.2
		0.60 - 0.69	145	25.0	86.5	53	9.2	96.4
		0.70 - 0.79	67	11.6	98.1	21	3.6	100.0
		0.80 - 0.89	1	0.2	98.3	0	0.0	100.0
		0.90 - 0.99	10	1.7	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0
6	Reading	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	0	0.0	0.0
		0.00 - 0.09	0	0.0	0.0	0	0.0	0.0
		0.10 - 0.19	0	0.0	0.0	12	3.1	3.1
		0.20 - 0.29	0	0.0	0.0	24	6.1	9.2
		0.30 - 0.39	25	6.4	6.4	137	35.0	44.2
		0.40 - 0.49	24	6.1	12.5	141	36.1	80.3
		0.50 - 0.59	77	19.7	32.2	31	7.9	88.2
		0.60 - 0.69	29	7.4	39.6	46	11.8	100.0
		0.70 - 0.79	122	31.2	70.8	0	0.0	100.0
		0.80 - 0.89	101	25.8	96.7	0	0.0	100.0
		0.90 - 0.99	13	3.3	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0

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Table F-3: 2006-07 NECAP Frequencies, Relative Percentages, and Cumulative Percentages of Difficulty and Discrimination Indices by Grade, Subject, and Index Range.

Grade	Subject	Range	Difficulty			Discrimination		
			N	%	Cum%	N	%	Cum%
7	Math	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	0	0.0	0.0
		0.00 - 0.09	21	3.6	3.6	12	2.1	2.1
		0.10 - 0.19	25	4.3	7.9	20	3.5	5.5
		0.20 - 0.29	38	6.6	14.5	48	8.3	13.8
		0.30 - 0.39	129	22.3	36.8	188	32.5	46.3
		0.40 - 0.49	106	18.3	55.1	184	31.8	78.1
		0.50 - 0.59	120	20.7	75.8	82	14.2	92.2
		0.60 - 0.69	50	8.6	84.5	45	7.8	100.0
		0.70 - 0.79	64	11.1	95.5	0	0.0	100.0
		0.80 - 0.89	26	4.5	100.0	0	0.0	100.0
		0.90 - 0.99	0	0.0	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0
7	Reading	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	0	0.0	0.0
		0.00 - 0.09	0	0.0	0.0	0	0.0	0.0
		0.10 - 0.19	0	0.0	0.0	11	2.8	2.8
		0.20 - 0.29	11	2.8	2.8	13	3.3	6.1
		0.30 - 0.39	10	2.6	5.4	159	40.7	46.8
		0.40 - 0.49	50	12.8	18.2	114	29.2	76.0
		0.50 - 0.59	65	16.6	34.8	36	9.2	85.2
		0.60 - 0.69	59	15.1	49.9	56	14.3	99.5
		0.70 - 0.79	95	24.3	74.2	2	0.5	100.0
		0.80 - 0.89	91	23.3	97.4	0	0.0	100.0
		0.90 - 0.99	10	2.6	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0

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Table F-3: 2006-07 NECAP Frequencies, Relative Percentages, and Cumulative Percentages of Difficulty and Discrimination Indices by Grade, Subject, and Index Range.

Grade	Subject	Range	Difficulty			Discrimination		
			N	%	Cum%	N	%	Cum%
8	Math	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	0	0.0	0.0
		0.00 - 0.09	10	1.7	1.7	0	0.0	0.0
		0.10 - 0.19	38	6.6	8.3	11	1.9	1.9
		0.20 - 0.29	31	5.4	13.6	74	12.8	14.7
		0.30 - 0.39	153	26.4	40.1	165	28.5	43.2
		0.40 - 0.49	98	16.9	57.0	161	27.8	71.0
		0.50 - 0.59	92	15.9	72.9	82	14.2	85.1
		0.60 - 0.69	118	20.4	93.3	84	14.5	99.7
		0.70 - 0.79	8	1.4	94.6	2	0.3	100.0
		0.80 - 0.89	31	5.4	100.0	0	0.0	100.0
		0.90 - 0.99	0	0.0	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0
8	Reading	< -0.30	0	0.0	0.0	0	0.0	0.0
		-0.30 - -0.21	0	0.0	0.0	0	0.0	0.0
		-0.20 - -0.11	0	0.0	0.0	0	0.0	0.0
		-0.10 - -0.01	0	0.0	0.0	0	0.0	0.0
		0.00 - 0.09	0	0.0	0.0	0	0.0	0.0
		0.10 - 0.19	0	0.0	0.0	1	0.3	0.3
		0.20 - 0.29	0	0.0	0.0	13	3.3	3.6
		0.30 - 0.39	1	0.3	0.3	126	32.2	35.8
		0.40 - 0.49	65	16.6	16.9	164	41.9	77.7
		0.50 - 0.59	52	13.3	30.2	18	4.6	82.4
		0.60 - 0.69	46	11.8	41.9	69	17.6	100.0
		0.70 - 0.79	73	18.7	60.6	0	0.0	100.0
		0.80 - 0.89	123	31.5	92.1	0	0.0	100.0
		0.90 - 0.99	31	7.9	100.0	0	0.0	100.0
		>= 1.00	0	0.0	100.0	0	0.0	100.0
8	Writing	< -0.30	0	0	0	0	0	0
		-0.30 - -0.21	0	0	0	0	0	0
		-0.20 - -0.11	0	0	0	0	0	0
		-0.10 - -0.01	0	0	0	0	0	0
		0.00 - 0.09	0	0	0	0	0	0
		0.10 - 0.19	0	0	0	0	0	0
		0.20 - 0.29	0	0	0	1	5.9	5.9
		0.30 - 0.39	0	0	0	11	64.7	70.6
		0.40 - 0.49	1	5.9	5.9	1	5.9	76.5
		0.50 - 0.59	4	23.5	29.4	0	0	76.5
		0.60 - 0.69	0	0	29.4	3	17.6	94.1
		0.70 - 0.79	4	23.5	52.9	1	5.9	100
		0.80 - 0.89	5	29.4	82.3	0	0	100
		0.90 - 0.99	3	17.6	99.9	0	0	100
		>= 1.00	0	0	99.9	0	0	100

Difficulty = p-value; Discrimination = point-biserial correlation

APPENDIX G

ITEM RESPONSE THEORY CALIBRATION RESULTS

Table G-1. IRT Item Parameters for 2006-07 NECAP: Math Grade 3 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
226956	0.6595	-2.0278	0.1254
264355	1.1346	-1.6031	0.2013
201416	0.8142	-0.7509	0.0452
201446	0.9664	0.1580	0.0738
198295	1.1446	-0.3839	0.1050
223879	0.8933	-1.2238	0.1957
226958	0.9074	1.1163	0.1967
201404	1.1479	-0.6538	0.0868
226960	1.2925	0.2416	0.1393
201961	0.4834	-2.2684	0.1128
201312	0.9052	-1.3684	0.0741
201585	0.7219	-0.7428	0.1964
226961	0.4852	-0.0836	0.2027
198557	1.0233	-1.2980	0.1041
226937	1.1120	0.0140	0.1650
223913	0.9335	-1.0595	0.0000
227021	1.6920	1.1143	0.1142
198621	1.3613	-1.2076	0.1617
201794	0.6522	0.2165	0.1421
226945	1.1761	0.1903	0.2078
226941	1.0572	-0.0401	0.2586
198527	0.4944	-0.9222	0.1105
201289	0.5613	-2.0386	0.1169
198551	0.8772	-1.4696	0.0386
198468	0.9635	-1.0369	0.0370
226979	0.5894	0.5402	0.2229
230982	0.9338	-0.8258	0.0801
201800	0.5834	-1.8566	0.1050
226935	0.9813	0.1092	0.3644
226962	1.0325	0.2138	0.0912
223892	0.7367	-1.3053	0.1162
227039	0.9572	0.2218	0.1149
223916	0.9837	-0.8292	0.0328
201611	0.9097	0.0390	0.2257
201805	0.7887	-0.8989	0.3547

a = discrimination; b = difficulty; c = guessing

Table G-2. IRT Item Parameters for 2006-07 NECAP: Math Grade 3 Open-Response Items.

Item Number	Parameters			
	a	b	D1	D2
201477	0.7734	-0.9756	N/A	N/A
205957	0.8431	0.7131	N/A	N/A
226965	0.7153	-0.4540	N/A	N/A
223920	0.6648	-0.6177	N/A	N/A
201461	0.7208	-2.5420	N/A	N/A
227040	0.6606	0.6594	N/A	N/A
226986	0.5607	-0.6238	N/A	N/A
226963	0.9783	0.5862	N/A	N/A
198577	0.7222	-2.1217	N/A	N/A
201481	0.9886	-1.0005	N/A	N/A
227029	0.9202	0.7108	0.2294	-0.2294
227128	0.7365	0.5526	0.2744	-0.2743
242779	0.9332	0.2789	0.2847	-0.2847
226866	0.7075	0.1966	0.5111	-0.5111
223923	0.8550	0.7516	0.6239	-0.6239
198517	0.5199	-1.3031	0.7212	-0.7212
242782	0.9195	-0.8545	0.7781	-0.7781
223933	0.8583	0.2769	0.8419	-0.8419
198636	0.7853	-0.9507	0.9745	-0.9744
201754	0.5438	-0.9275	1.2095	-1.2095

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter

Figure G-1. Test Characteristic Curve (TCC) for 2006-07 NECAP: Math Grade 3.

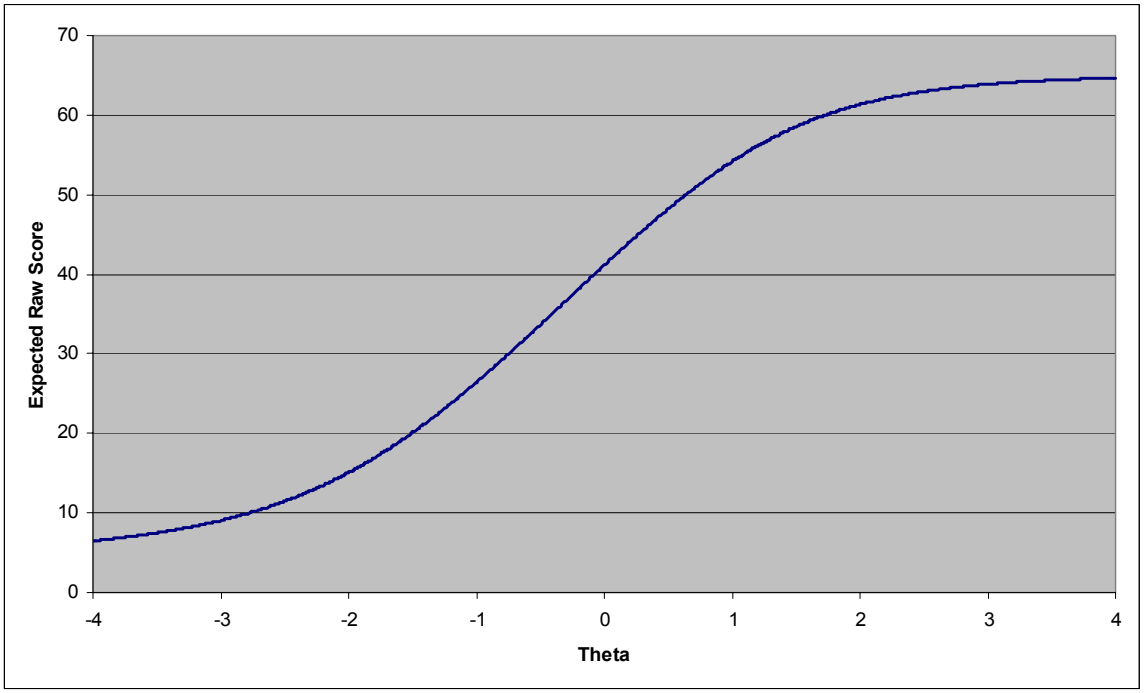


Figure G-2. Test Information Function (TIF) for 2006-07 NECAP: Math Grade 3.

Table G-3. IRT Item Parameters for 2006-07 NECAP: Math Grade 4 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
202346	0.7320	-1.9151	0.1205
227067	0.8669	-0.9366	0.1563
198400	0.7925	-1.0400	0.0680
198328	1.1657	0.7845	0.1333
227070	0.8940	1.0627	0.1791
202347	0.7510	-0.8174	0.0931
227066	0.8855	0.2866	0.0948
227059	0.8012	0.1648	0.0984
223960	0.7700	-1.6552	0.1182
198327	0.5981	-2.9708	0.1079
232502	0.6484	-1.8279	0.0973
224032	1.0005	-0.1855	0.1785
202403	1.0170	-0.4165	0.1438
227058	0.7545	-1.9651	0.0527
227088	0.3822	4.0849	0.1222
227098	1.0108	-0.4731	0.1108
227055	1.3011	1.3057	0.0959
198430	0.9206	-1.6609	0.1455
202387	1.2628	0.0935	0.2035
202397	0.5047	-1.8507	0.0958
227109	0.4973	1.1118	0.0988
227050	0.8995	-1.1586	0.0403
202500	0.7059	-1.8436	0.0753
202323	1.2303	-0.4530	0.1941
202388	0.8241	-1.0033	0.0598
227060	0.9732	-1.5457	0.1120
223966	0.7245	0.1467	0.1176
198385	0.6342	0.1889	0.1251
227107	0.9498	-1.3345	0.0585
202335	1.3016	0.1781	0.1970
202390	0.8286	-2.2768	0.0624
223987	1.1223	0.4676	0.0781
202304	0.8423	-0.7089	0.1178
227106	0.9803	0.9175	0.0795
232578	0.7222	-1.4563	0.3357

a = discrimination; b = difficulty; c = guessing

Table G-4. IRT Item Parameters for 2006-07 NECAP: Math Grade 4 Open-Response Items.

Item Number	Parameters			
	a	b	D1	D2
232535	0.7165	-0.3348	N/A	N/A
224089	0.9045	-0.3338	N/A	N/A
227091	0.5296	0.4753	N/A	N/A
227071	0.9182	0.7165	N/A	N/A
198401	0.4974	-1.7014	N/A	N/A
227100	0.6776	-1.9864	N/A	N/A
232631	0.8547	-0.0391	N/A	N/A
232534	0.8793	-0.2837	N/A	N/A
227073	0.5756	-0.4549	N/A	N/A
232543	0.8106	-0.9876	N/A	N/A
232429	0.9534	-0.4174	0.2413	-0.2413
202494	0.8474	0.7163	0.2565	-0.2565
202377	0.7288	-1.5111	0.4463	-0.4463
227085	0.8399	-0.1647	0.6666	-0.6666
198431	0.6652	0.2902	0.6733	-0.6733
198442	0.4772	-1.0770	0.8916	-0.8916
227096	0.5096	0.3773	0.9085	-0.9085
232539	0.8340	-1.5173	1.1054	-1.1054
224101	0.7643	0.1658	1.1113	-1.1113
227102	0.6998	-0.8076	1.2419	-1.2419

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter

Figure G-3. Test Characteristic Curve (TCC) for 2006-07 NECAP: Math Grade 4.

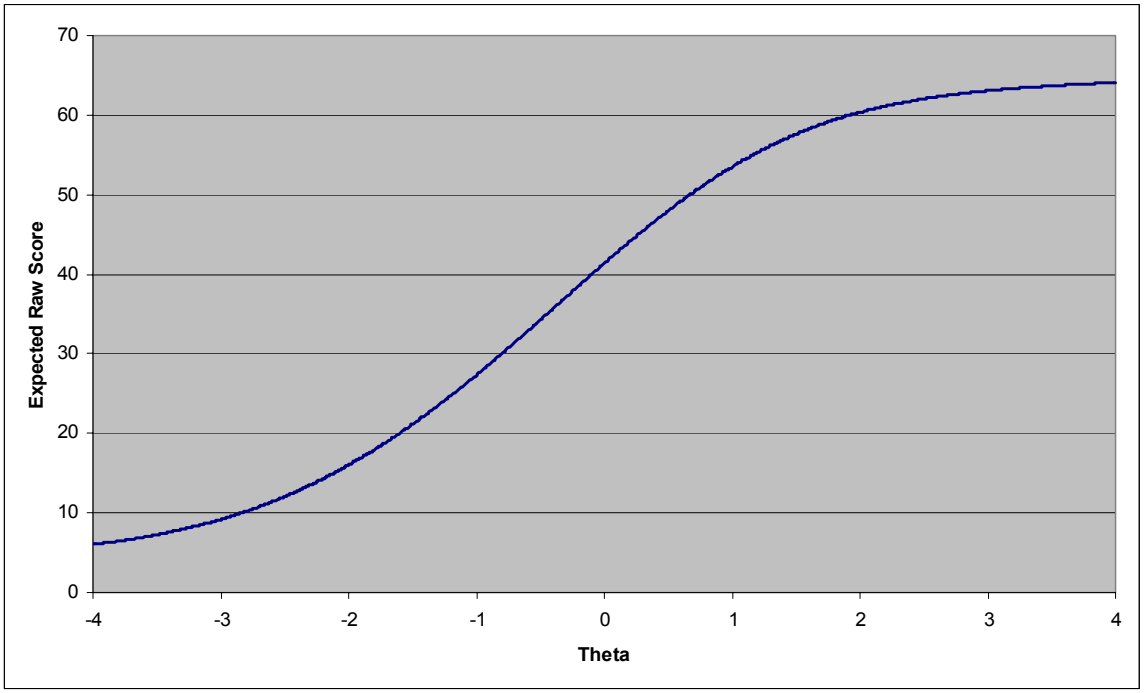


Figure G-4. Test Information Function (TIF) for 2006-07 NECAP: Math Grade 4.

Table G-5. IRT Item Parameters for 2006-07 NECAP: Math Grade 5 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
203269	0.7023	-1.6574	0.1179
203358	0.7456	-0.6656	0.1391
225445	1.0950	0.5624	0.1354
225408	0.7666	1.2373	0.1650
225327	1.2081	0.6933	0.1288
225034	0.7523	0.4461	0.1845
225015	0.7349	0.2318	0.1167
225333	0.8649	0.3137	0.1213
203301	0.7138	1.1453	0.1934
225331	0.7163	0.0872	0.0977
203933	0.7484	-1.5751	0.0953
198485	0.6382	0.3752	0.1175
234370	0.8581	-0.6881	0.2218
198645	0.7274	0.2938	0.1205
225011	1.2653	0.5523	0.1134
203584	0.8994	0.2185	0.1481
225312	1.4353	0.6125	0.0846
203280	1.0863	-0.3838	0.2150
198515	0.6450	-0.8019	0.0000
203588	0.5986	0.8260	0.3269
203907	0.7885	-0.9008	0.1529
225302	0.6679	-1.5495	0.0737
225366	0.6683	0.3578	0.0828
203258	0.7636	-1.3980	0.2413
225378	0.6469	0.6101	0.1871
225316	1.0061	0.3220	0.1992
225295	0.6112	0.4849	0.1290
198583	0.7561	-0.6952	0.1139
233208	1.7195	0.6449	0.1549
230754	0.8981	0.4763	0.3302
203302	1.5893	0.0889	0.1081
230820	0.8085	-0.3801	0.2112

a = discrimination; b = difficulty; c = guessing

Table G-6. IRT Item Parameters for 2006-07 NECAP: Math Grade 5 Open-Response Items.

Item Number	Parameters					
	a	b	D1	D2	D3	D4
258391	0.6383	-1.2687	N/A	N/A	N/A	N/A
225023	0.7198	0.5956	N/A	N/A	N/A	N/A
203941	0.6826	-1.5364	N/A	N/A	N/A	N/A
198568	0.9637	0.2722	N/A	N/A	N/A	N/A
198546	1.2633	0.5747	N/A	N/A	N/A	N/A
225447	1.0436	0.9186	N/A	N/A	N/A	N/A
234394	0.8199	-0.4803	0.1425	-0.1425	N/A	N/A
225025	0.5114	0.5686	0.6711	-0.6711	N/A	N/A
225027	0.6540	0.5045	0.8974	-0.8974	N/A	N/A
230777	0.2398	0.9668	2.2947	-2.2947	N/A	N/A
225346	0.8491	-0.3247	0.4824	-0.4824	N/A	N/A
203949	0.9815	0.7206	0.5783	-0.5783	N/A	N/A
241932	0.8518	0.0777	1.2113	0.5483	-0.5394	-1.2203
230748	1.0525	1.0434	0.8031	0.3782	-0.4212	-0.7602
225438	0.8079	-0.7302	1.0804	0.6727	-0.3693	-1.3838
225028	1.1240	0.4507	0.9036	0.4392	-0.3939	-0.9489

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter

Figure G-5. Test Characteristic Curve (TCC) for 2006-07 NECAP: Math Grade 5.

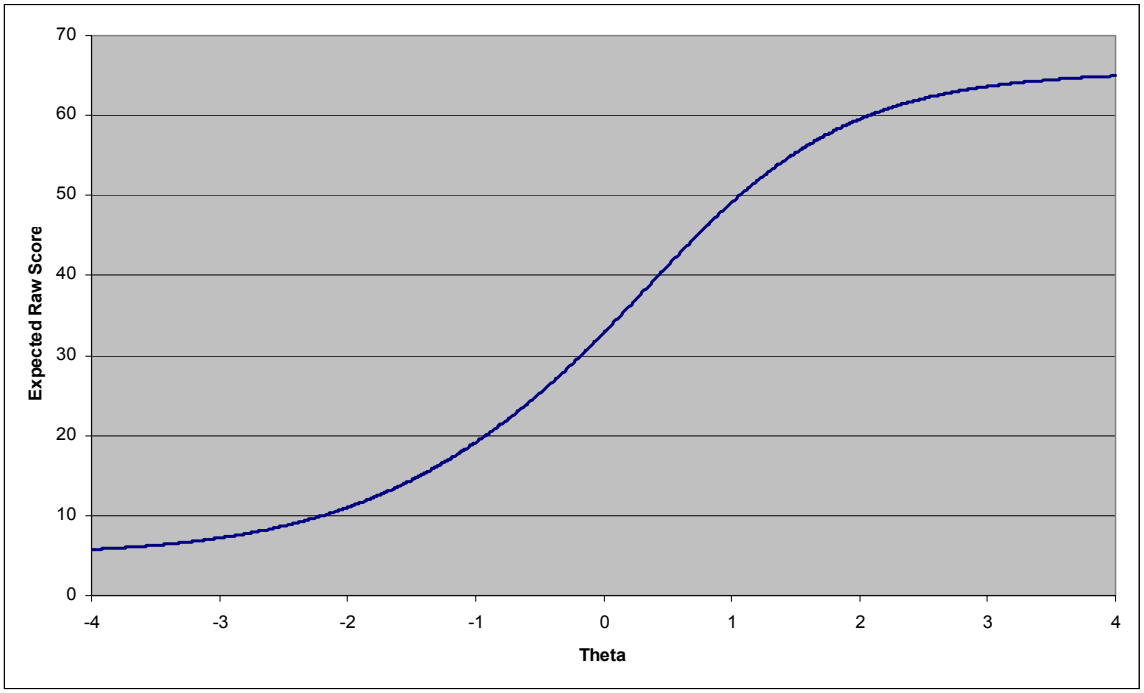


Figure G-6. Test Information Function (TIF) for 2006-07 NECAP: Math Grade 5.

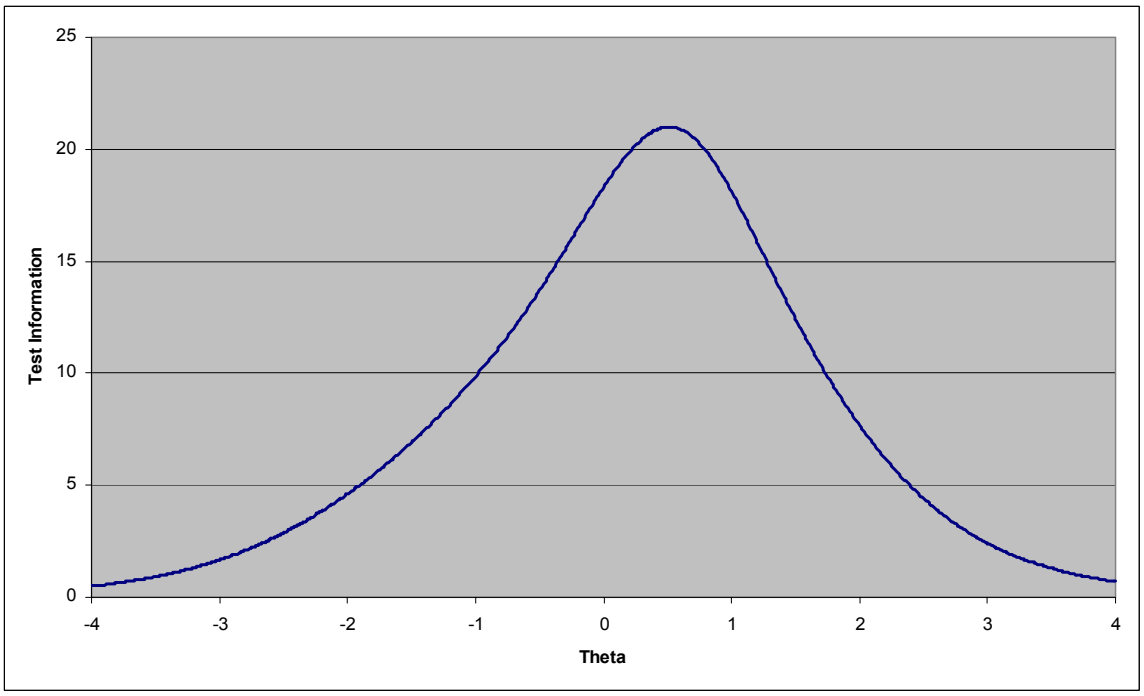


Table G-7. IRT Item Parameters for 2006-07 NECAP: Math Grade 6 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
203190	0.6983	-0.8314	0.2024
225329	0.6920	-0.3173	0.0974
203210	0.7525	0.4686	0.2282
203355	0.7890	1.0318	0.2387
225376	0.5878	0.3397	0.0940
198610	0.9160	-0.9467	0.1565
203534	0.4381	0.9567	0.1175
198612	1.2990	0.8976	0.1544
203217	0.5192	-0.6846	0.0520
203204	1.0290	-0.0328	0.1861
198601	1.1640	-0.6537	0.0778
225375	0.5880	0.1711	0.2846
225351	0.3841	0.3595	0.0846
225318	1.2127	0.4464	0.1070
225428	0.9334	1.0149	0.0929
203393	0.9070	0.2706	0.0942
225267	1.2086	0.2744	0.2757
198650	0.7799	0.1844	0.3109
203381	0.4865	-0.9064	0.3914
203444	0.8067	-0.2719	0.1676
203192	0.7852	-0.3785	0.1222
198651	0.7663	-2.4105	0.1793
203449	0.7506	0.5562	0.3527
225252	1.0818	0.5448	0.0626
242302	1.0219	0.0161	0.1109
225309	0.3496	-1.8941	0.0925
234409	1.0779	-0.1630	0.2721
203379	1.1575	1.3218	0.1830
225300	1.0800	1.9440	0.0537
198649	0.8310	0.6530	0.1757
203397	1.3361	1.4849	0.3153
203455	0.9325	-0.7282	0.1726

a = discrimination; b = difficulty; c = guessing

Table G-8. IRT Item Parameters for 2006-07 NECAP: Math Grade 6 Open-Response Items.

Item Number	Parameters					
	a	b	D1	D2	D3	D4
198713	0.9169	-0.3791	N/A	N/A	N/A	N/A
225332	1.0725	0.4270	N/A	N/A	N/A	N/A
228669	1.2597	-0.5332	N/A	N/A	N/A	N/A
225183	0.9100	0.2571	N/A	N/A	N/A	N/A
203540	0.6955	-0.2108	N/A	N/A	N/A	N/A
225363	0.3915	1.0210	N/A	N/A	N/A	N/A
228673	1.0437	1.1153	0.1730	-0.1730	N/A	N/A
225287	0.8733	0.3054	0.3463	-0.3463	N/A	N/A
203279	0.8394	-0.7195	0.3502	-0.3502	N/A	N/A
198716	0.6622	0.3649	1.3731	-1.3731	N/A	N/A
198657	1.0438	0.9392	0.2596	-0.2595	N/A	N/A
198628	0.9747	0.0178	0.7558	-0.7558	N/A	N/A
225381	0.9647	0.8103	1.0999	0.4174	-0.4177	-1.0996
233588	1.1319	0.4552	1.2719	0.1555	-0.3427	-1.0848
234414	1.3211	0.4054	1.0640	0.6970	-0.6470	-1.1140
225416	0.9316	-0.1353	0.9229	0.4364	-0.3988	-0.9605

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter

Figure G-7. Test Characteristic Curve (TCC) for 2006-07 NECAP: Math Grade 6.

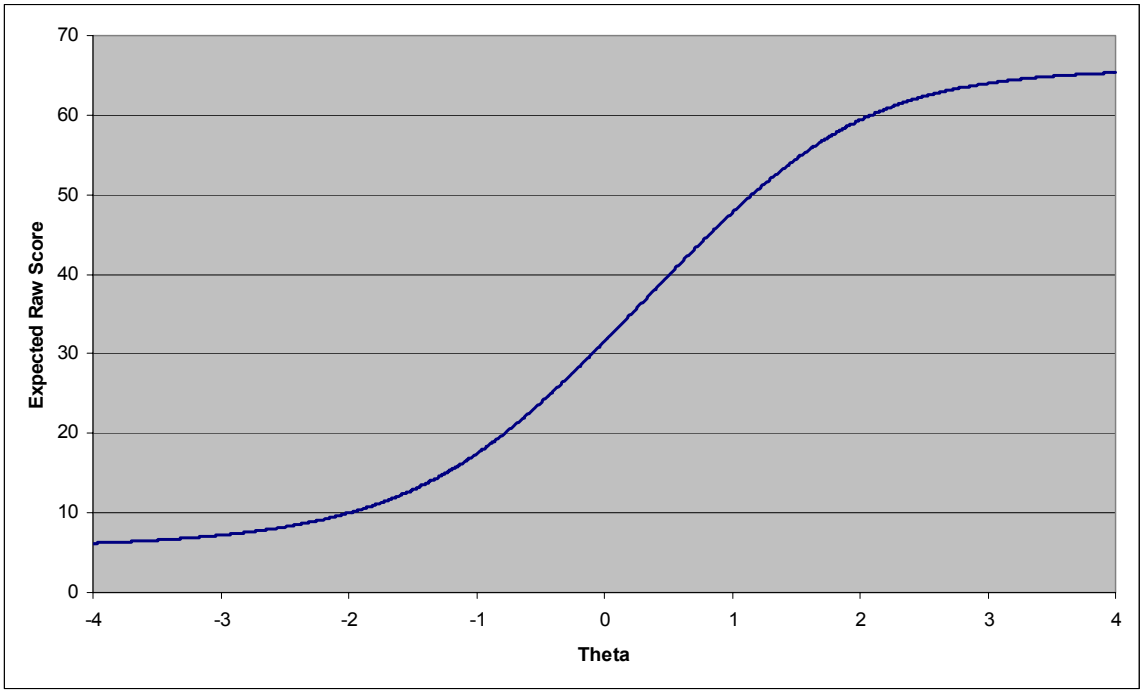


Figure G-8. Test Information Function (TIF) for 2006-07 NECAP: Math Grade 6.

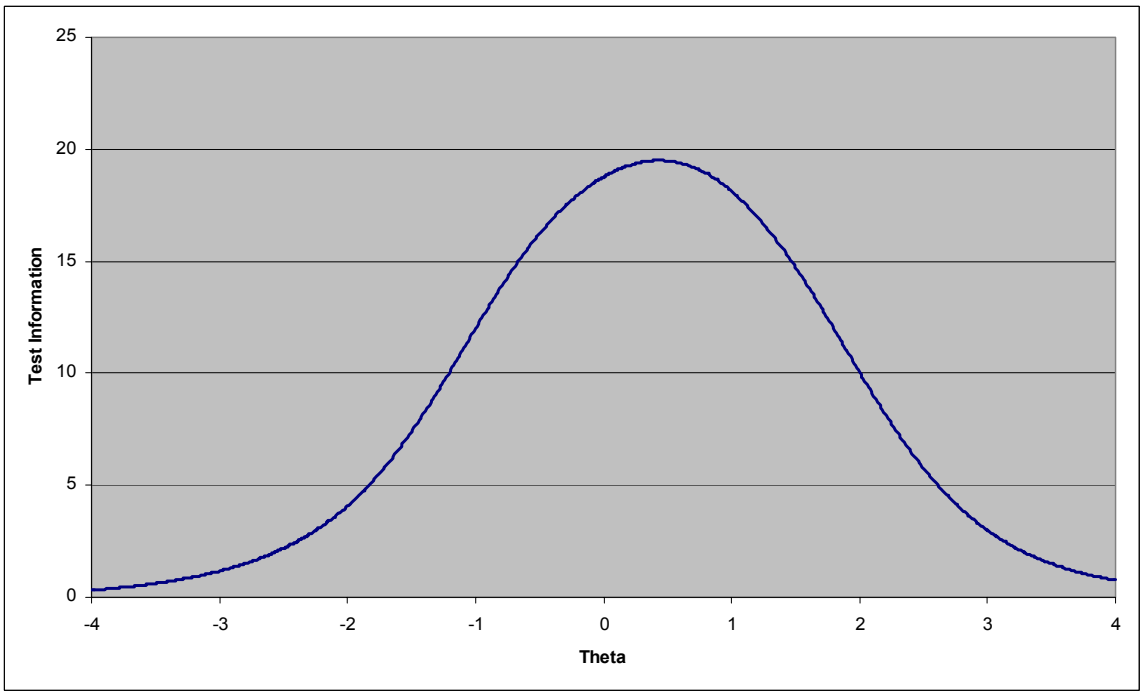


Table G-9. IRT Item Parameters for 2006-07 NECAP: Math Grade 7 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
199875	0.9251	0.0607	0.1811
224764	0.7418	-1.8700	0.0712
224768	1.1142	0.8130	0.1830
224788	0.8282	0.9530	0.2904
206108	0.8161	0.7019	0.3506
206099	1.2489	0.6097	0.2807
199869	1.1681	0.3785	0.1222
206106	1.3628	1.3006	0.2588
224763	1.1241	1.2105	0.2379
224801	0.8822	1.0930	0.1471
206208	0.8596	-1.0773	0.0775
206171	1.6907	1.1181	0.2864
199904	0.3348	-1.1939	0.0000
199870	0.5532	0.0675	0.0345
233741	1.0320	0.6236	0.1266
206134	0.7593	0.8660	0.1045
224761	0.7385	0.1554	0.1965
233831	1.5803	0.9049	0.1069
224789	0.7908	-0.7822	0.1729
224770	0.8915	2.0814	0.3367
225087	1.0061	0.1769	0.1897
206158	0.8860	-0.7827	0.0920
234451	0.5329	-1.8754	0.0932
224778	0.0582	18.0123	0.0000
199925	1.3272	0.7954	0.3138
199947	0.7707	-0.4046	0.2148
225078	0.6892	1.9572	0.2816
228094	0.6966	0.1890	0.2497
199920	0.7346	1.2201	0.1384
206177	0.9129	-0.6245	0.1564
199905	0.6008	1.3630	0.1008
225081	0.7204	-0.2303	0.1209

a = discrimination; b = difficulty; c = guessing

Table G-10. IRT Item Parameters for 2006-07 NECAP: Math Grade 7 Open-Response Items.

Item Number	Parameters					
	a	b	D1	D2	D3	D4
224829	0.6205	-0.0978	N/A	N/A	N/A	N/A
224827	0.7087	0.5073	N/A	N/A	N/A	N/A
206182	0.8326	0.4638	N/A	N/A	N/A	N/A
234443	1.0309	0.6475	N/A	N/A	N/A	N/A
234449	0.9918	2.1340	N/A	N/A	N/A	N/A
199950	0.7565	-0.8218	N/A	N/A	N/A	N/A
224849	1.1286	2.2312	0.2072	-0.2072	N/A	N/A
199878	1.3254	1.2188	0.2128	-0.2128	N/A	N/A
206218	0.8378	0.4953	0.4701	-0.4701	N/A	N/A
234460	1.1208	0.7014	0.4944	-0.4944	N/A	N/A
225140	0.7966	1.2519	0.8612	-0.8612	N/A	N/A
224851	0.7885	0.4570	2.2196	-2.2196	N/A	N/A
206125	0.9907	-0.1308	0.9109	0.5133	-0.5005	-0.9237
224876	1.3251	1.1693	0.6804	0.2138	-0.2734	-0.6208
199954	0.8569	0.8627	1.1918	0.3233	-0.5147	-1.0004
206195	0.7563	-0.1911	0.7456	0.3596	-0.3732	-0.7320

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter

Figure G-9. Test Characteristic Curve (TCC) for 2006-07 NECAP: Math Grade 7.

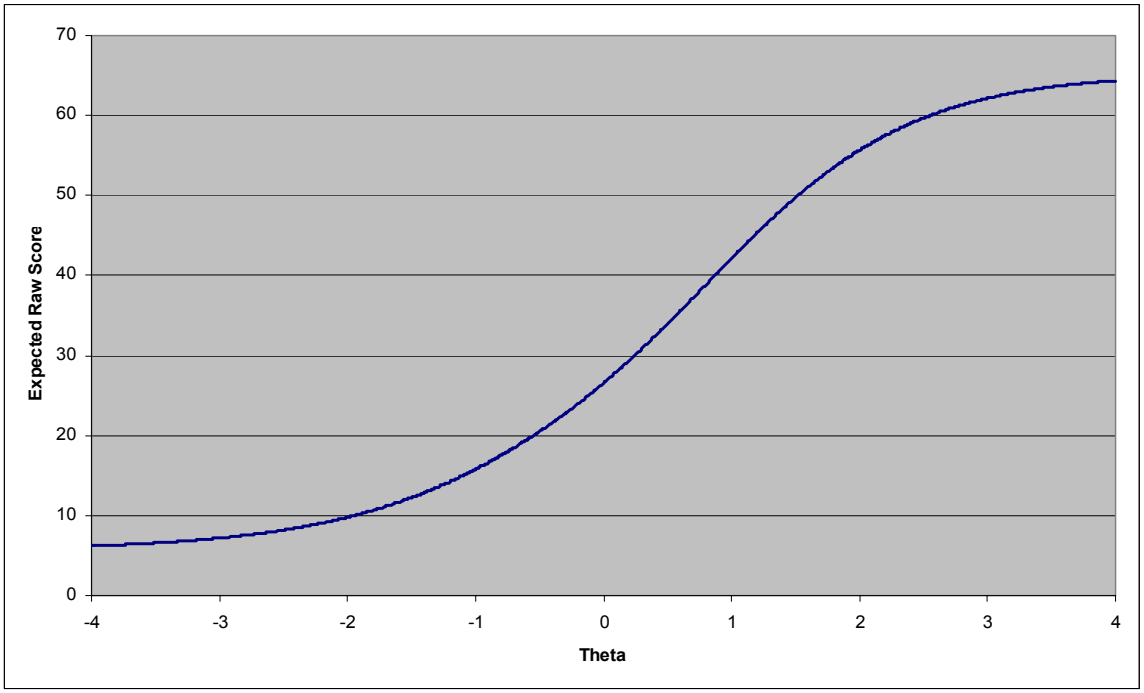


Figure G-10. Test Information Function (TIF) for 2006-07 NECAP: Math Grade 7.

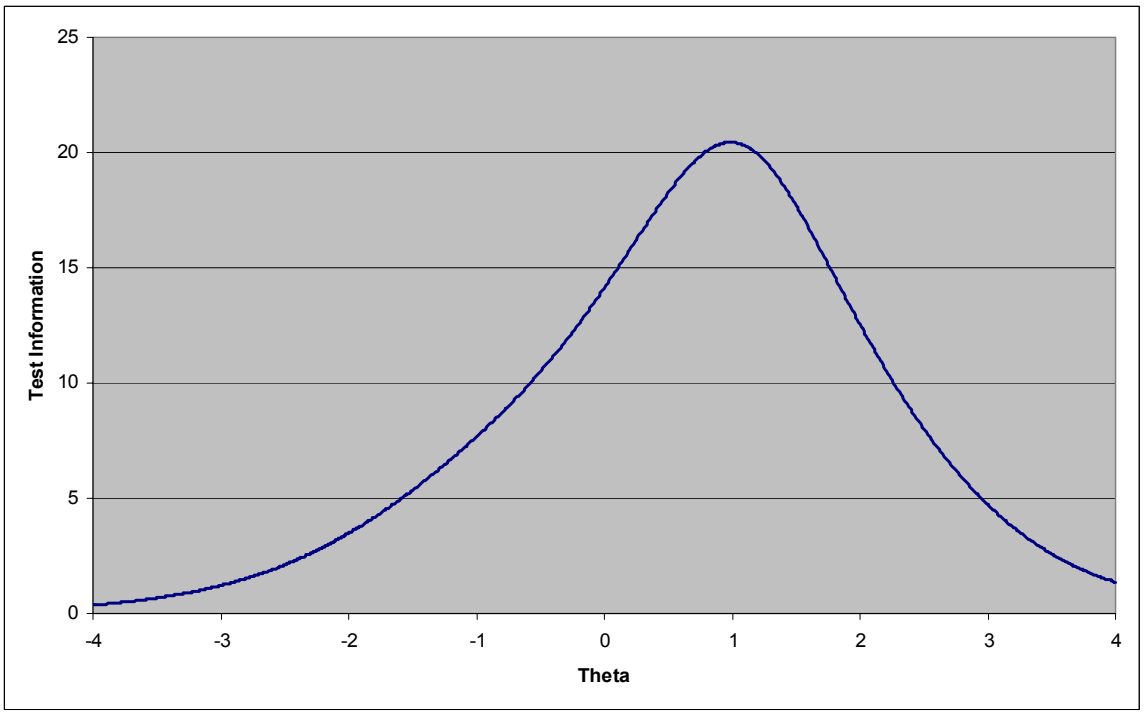


Table G-11. IRT Item Parameters for 2006-07 NECAP: Math Grade 8 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
206230	0.8100	-1.4339	0.0475
224878	0.7393	1.5824	0.2025
224871	0.8190	0.7359	0.2905
206304	0.9087	0.9964	0.3723
206229	1.3577	1.2317	0.3247
206251	0.9635	1.3947	0.2099
206288	1.4245	0.2075	0.2843
224824	2.0147	0.9459	0.3549
206247	0.9717	-0.4027	0.1569
224830	0.5369	-0.4867	0.1319
206295	0.9118	-1.2270	0.1419
206284	0.9998	0.0117	0.0354
224853	0.7296	1.9326	0.2266
224887	0.7077	-0.3745	0.1099
224891	1.4416	0.9737	0.1414
233713	1.3061	-0.1340	0.2626
224880	1.2120	1.2488	0.1724
199746	1.0097	0.2004	0.2542
226521	0.7247	-0.5440	0.0952
224879	1.2673	0.9596	0.1723
206223	0.9237	0.4685	0.5052
199755	1.2655	-1.0087	0.0484
224873	1.6905	1.1161	0.1644
206298	0.8859	-0.0149	0.1597
224888	0.8005	0.9425	0.1542
199730	0.9719	-0.1238	0.2644
224889	0.5653	-0.1185	0.3044
224881	0.4749	0.7977	0.1858
224892	0.6805	0.8152	0.1214
224869	0.7063	0.4935	0.1816
206302	1.4338	0.7764	0.2949
233758	1.1099	0.2533	0.2005

a = discrimination; b = difficulty; c = guessing

Table G-12. IRT Item Parameters for 2006-07 NECAP: Math Grade 8 Open-Response Items.

Item Number	Parameters					
	a	b	D1	D2	D3	D4
206323	1.0482	0.3554	N/A	N/A	N/A	N/A
246387	0.9700	0.7122	N/A	N/A	N/A	N/A
206313	0.9561	0.5621	N/A	N/A	N/A	N/A
224929	0.7288	0.4329	N/A	N/A	N/A	N/A
224917	0.7799	1.4334	N/A	N/A	N/A	N/A
224903	1.2880	1.8879	N/A	N/A	N/A	N/A
224932	1.2688	0.7006	0.0955	-0.0955	N/A	N/A
224944	1.3037	1.0034	0.2675	-0.2675	N/A	N/A
224956	1.1245	0.7552	0.5839	-0.5839	N/A	N/A
199780	0.7213	0.1179	0.6014	-0.6014	N/A	N/A
199747	0.5571	2.2174	0.9242	-0.9242	N/A	N/A
224855	0.8415	1.0370	1.4948	-1.4948	N/A	N/A
206245	1.2088	0.7742	0.8561	0.2342	-0.4272	-0.6631
246388	1.0792	1.5336	1.6367	0.1455	-0.4763	-1.3059
224996	1.2150	1.2918	0.6121	0.4856	-0.3502	-0.7475
224977	1.2538	-0.3008	0.6296	0.2956	-0.1619	-0.7633

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter

Figure G-11. Test Characteristic Curve (TCC) for 2006-07 NECAP: Math Grade 8.

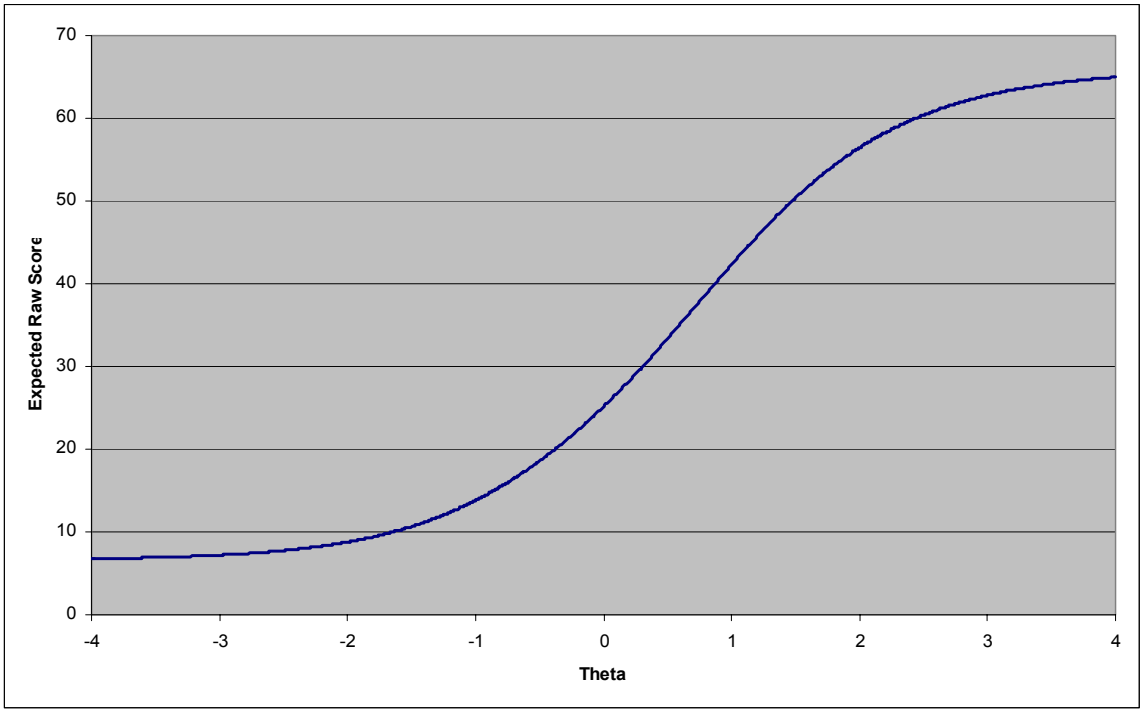


Figure G-12. Test Information Function (TIF) for 2006-07 NECAP: Math Grade 8.

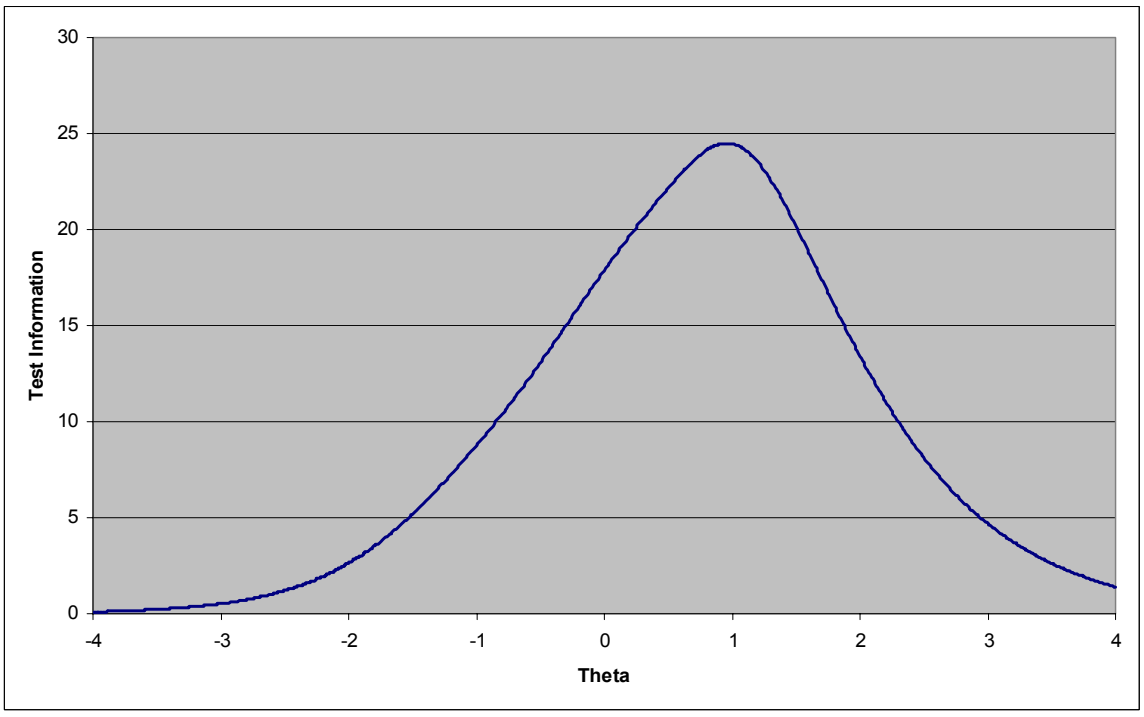


Table G-13. IRT Item Parameters for 2006-07 NECAP: Reading Grade 3 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
202191	0.5231	-1.1086	0.1500
227061	1.1778	-1.1664	0.1881
225195	0.5536	-1.8887	0.1500
225202	1.2804	-0.7052	0.1424
225198	1.2679	-0.7947	0.1811
225206	1.2420	-1.6179	0.0556
225409	0.6597	-0.7024	0.0690
225411	1.0760	-0.7499	0.1275
225415	1.0885	-0.7509	0.1803
225413	0.5855	-0.9719	0.1252
225417	1.2660	-0.1373	0.2190
225419	1.0810	-0.5748	0.1631
225425	0.9325	-0.9253	0.0970
225429	0.6733	-0.9760	0.0449
230989	0.8973	0.4441	0.1677
230990	0.9349	-2.0895	0.1230
201914	1.3230	-0.9609	0.1487
230991	1.0298	0.1591	0.0779
201972	1.1255	-1.1027	0.2782
230992	0.8852	0.0282	0.1282
230993	0.7883	-0.7152	0.0478
230994	0.9233	-1.3437	0.0822
226284	0.9514	-0.6986	0.0529
226288	0.6283	-1.1965	0.1247
225321	0.9178	-0.3191	0.2234
225341	0.8065	-0.8162	0.1016
225330	1.0222	0.2840	0.2298
225340	0.5744	-0.5814	0.1145

a = discrimination; b = difficulty; c = guessing

Table G-14. IRT Item Parameters for 2006-07 NECAP: Reading Grade 3 Open-Response Items.

Item Number	Parameters					
	a	b	D1	D2	D3	D4
225212	1.0436	-1.5884	0.7899	0.1856	-0.2102	-0.7653
225431	0.5004	-0.2878	2.6455	0.3991	-0.8031	-2.2415
225450	0.7532	-0.2914	1.9003	0.7270	-0.6152	-2.0121
201979	0.7395	-0.9393	1.5012	0.7212	-1.0313	-1.1910
201976	0.8708	-0.5552	2.1984	-0.2538	-0.5661	-1.3784
225344	1.0169	-0.1017	1.0561	0.2976	-0.2734	-1.0804

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter

Figure G-13. Test Characteristic Curve (TCC) for 2006-07 NECAP: Reading Grade 3.

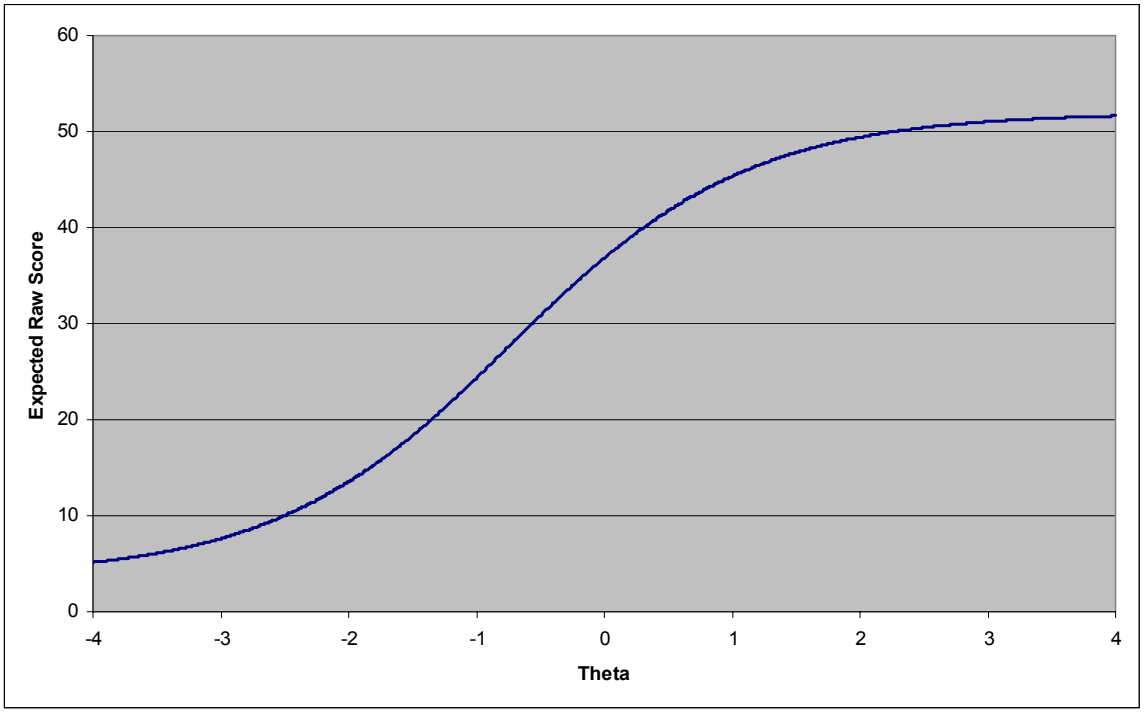


Figure G-14. Test Information Function (TIF) for 2006-07 NECAP: Reading Grade 3.

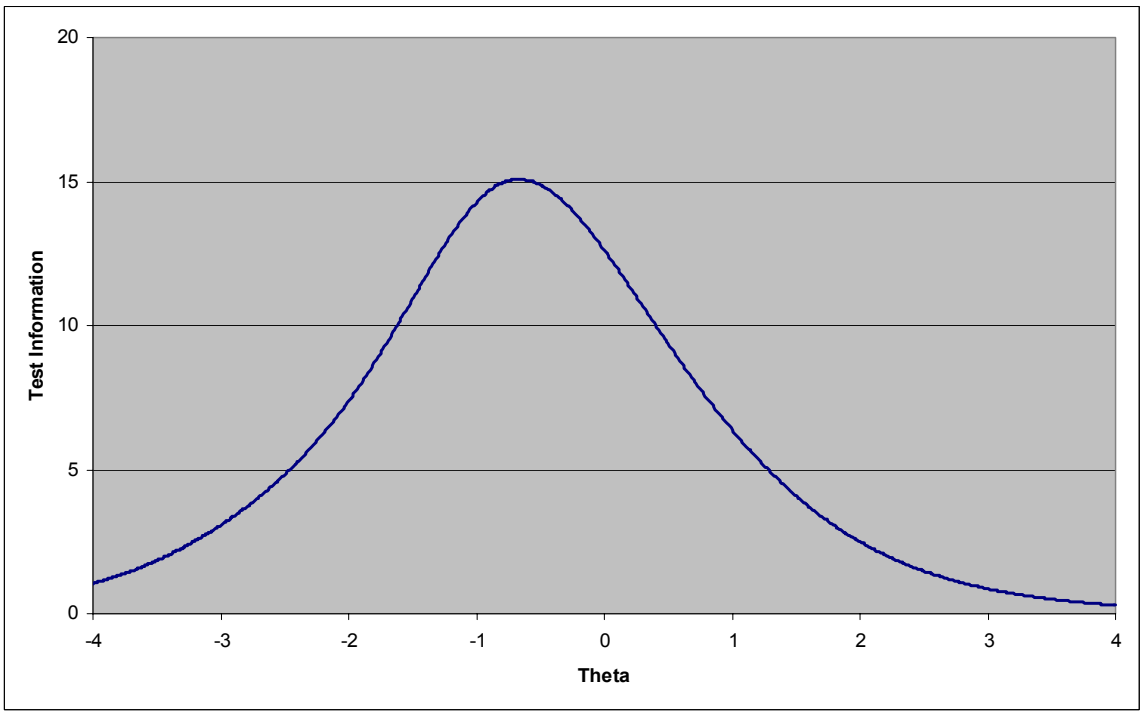


Table G-15. IRT Item Parameters for 2006-07 NECAP: Reading Grade 4 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
203932	0.8959	-0.9926	0.1175
226228	0.5644	0.1209	0.2206
232575	1.1431	-1.2724	0.1868
203832	0.8619	-1.8578	0.1014
203833	0.9603	-0.6140	0.1711
232584	0.9396	-1.9844	0.0671
203668	0.7291	0.4638	0.0775
232576	1.1540	-1.4700	0.1372
203673	0.8786	-0.2967	0.2137
203675	1.1320	-0.5075	0.1801
232579	1.1874	-0.5286	0.1819
203670	0.4930	0.6616	0.1458
203678	1.0645	0.7580	0.1880
232585	1.0385	-0.4405	0.2243
225651	0.7644	-0.9270	0.1666
225657	0.6944	-0.4408	0.2243
225668	0.5578	-0.6796	0.0471
225670	1.3873	-0.7855	0.1722
225671	0.6206	0.3910	0.2251
225674	0.7448	-0.1193	0.1901
225655	1.1092	-0.9223	0.2101
225673	0.7903	-1.6945	0.2500
232523	0.6048	-0.3312	0.0651
226202	0.5465	-0.8401	0.0966
225712	1.0209	0.0668	0.0995
225715	1.1269	-0.2017	0.1757
225717	1.0021	0.2871	0.1575
225719	0.6881	-0.1703	0.1573

a = discrimination; b = difficulty; c = guessing

Table G-16. IRT Item Parameters for 2006-07 NECAP: Reading Grade 4 Open-Response Items.

Item Number	Parameters					
	a	b	D1	D2	D3	D4
203840	0.5863	0.0870	3.4117	0.7138	-1.2603	-2.8652
205951	0.9019	-1.2437	1.2172	0.5215	-0.4020	-1.3367
203684	0.8208	0.4934	2.3422	0.7438	-0.7973	-2.2887
225676	0.6224	-0.2167	2.1555	1.0563	-0.8331	-2.3787
225677	0.9044	0.2457	2.2538	0.9139	-0.8253	-2.3425
225725	0.7899	-0.9420	1.4089	0.4638	-0.4024	-1.4704

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter

Figure G-15. Test Characteristic Curve (TCC) for 2006-07 NECAP: Reading Grade 4.

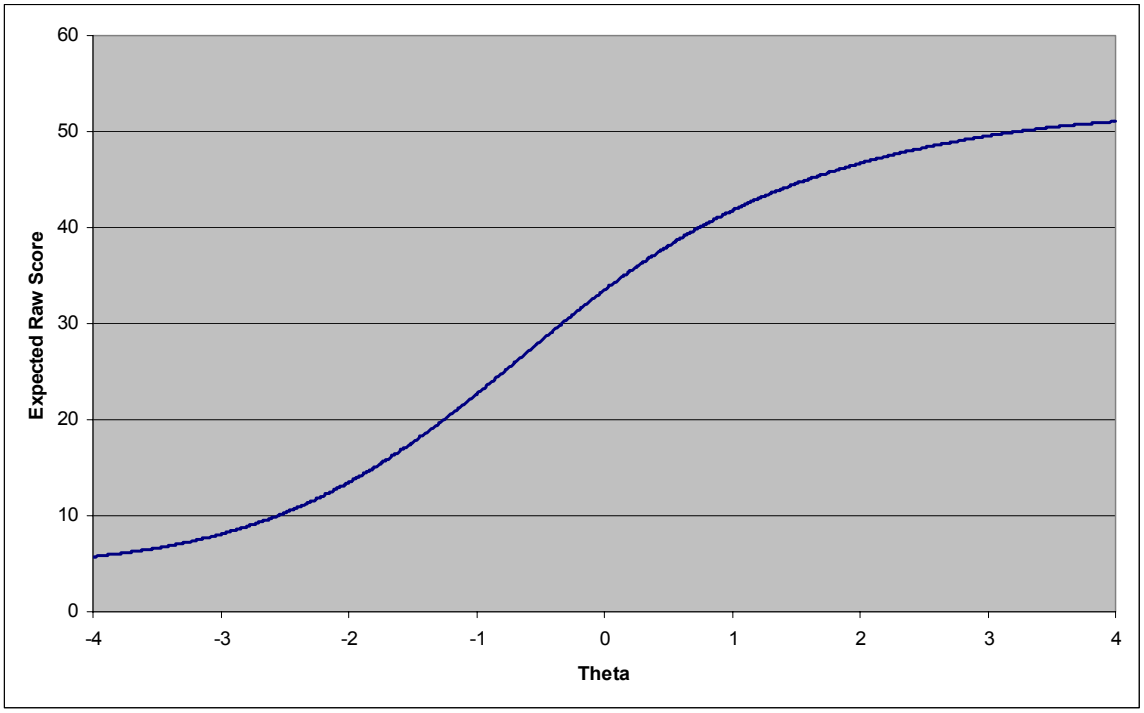


Figure G-16. Test Information Function (TIF) for 2006-07 NECAP: Reading Grade 4.

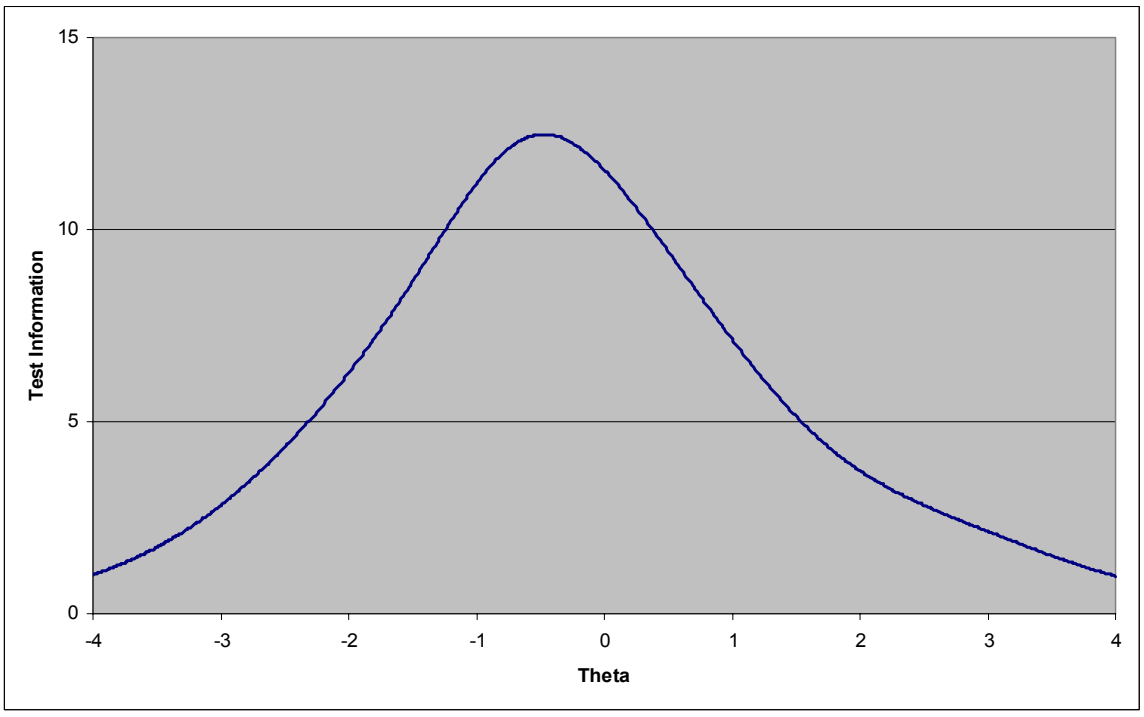


Table G-17. IRT Item Parameters for 2006-07 NECAP: Reading Grade 5 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
226602	0.7751	-0.4703	0.2247
226593	0.9252	-0.5961	0.2082
226524	0.4950	-1.1920	0.1006
226528	0.7530	-0.8479	0.2276
226530	1.1501	-1.3216	0.1328
226526	0.5918	-0.9426	0.1396
226542	0.9271	0.2582	0.1712
226543	0.5488	0.4314	0.1344
226544	0.7946	0.3408	0.1558
226546	0.5324	-0.5324	0.1611
226547	0.9232	-0.9796	0.1161
226548	0.3667	0.7374	0.2614
226549	0.6280	-0.8716	0.1038
226550	1.2405	-0.7109	0.1517
230725	0.9876	-1.2009	0.2116
200143	0.9457	-0.9560	0.1208
201357	0.8630	-1.4976	0.0931
200145	1.1988	-0.7248	0.0918
200146	1.1562	-1.4791	0.0554
230738	0.7517	-0.5136	0.1138
200150	0.6867	-1.3321	0.0940
200151	0.4940	-1.3945	0.0000
226590	0.8418	-0.8188	0.1707
230719	0.5526	-1.1933	0.1124
226580	0.6862	-0.2970	0.1659
226585	0.6060	-0.1053	0.0723
226584	1.1781	-1.1648	0.1397
226586	0.6051	-0.4248	0.0461

a = discrimination; b = difficulty; c = guessing

Table G-18. IRT Item Parameters for 2006-07 NECAP: Reading Grade 5 Open-Response Items.

Item Number	Parameters					
	a	b	D1	D2	D3	D4
226535	0.7148	0.3598	2.6738	0.8679	-1.0216	-2.5201
226554	1.0841	0.5721	1.9113	0.6850	-0.6976	-1.8987
226553	0.8810	1.3396	2.6196	0.7078	-0.9561	-2.3713
200152	0.9842	0.3571	2.1776	0.7295	-0.8858	-2.0212
230742	0.8717	0.1451	2.2335	0.7089	-0.8381	-2.1044
226587	0.8858	0.4906	2.5839	0.6968	-0.8999	-2.3807

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter

Figure G-17. Test Characteristic Curve (TCC) for 2006-07 NECAP: Reading Grade 5.

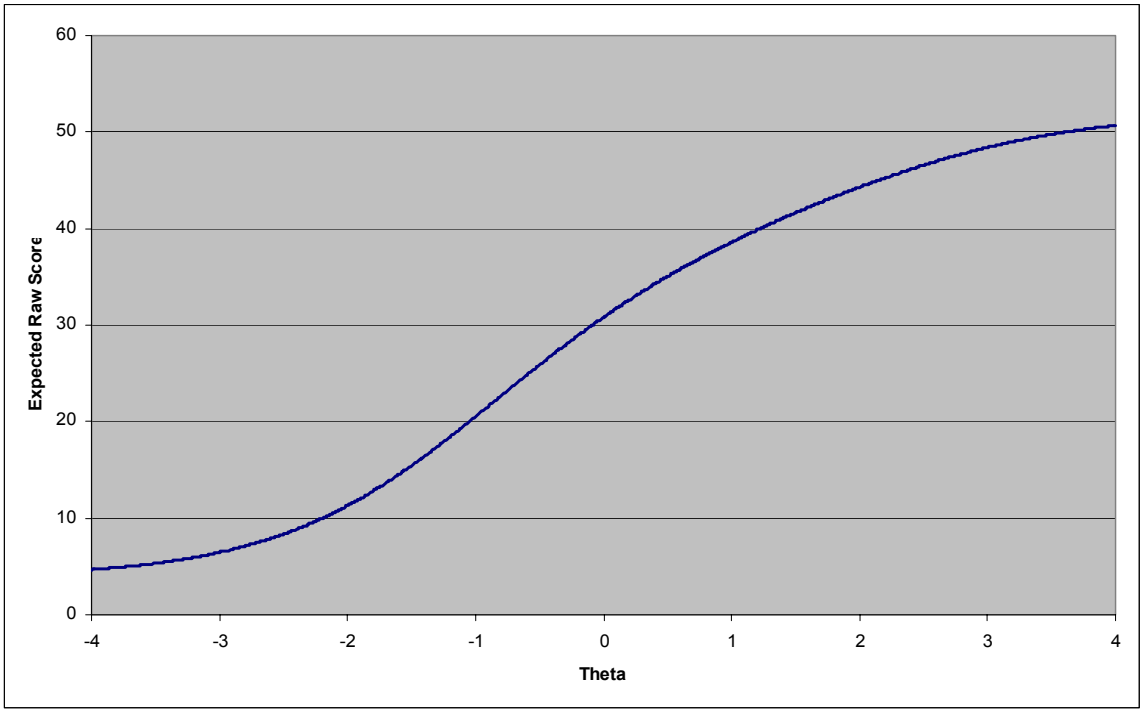


Figure G-18. Test Information Function (TIF) for 2006-07 NECAP: Reading Grade 5.

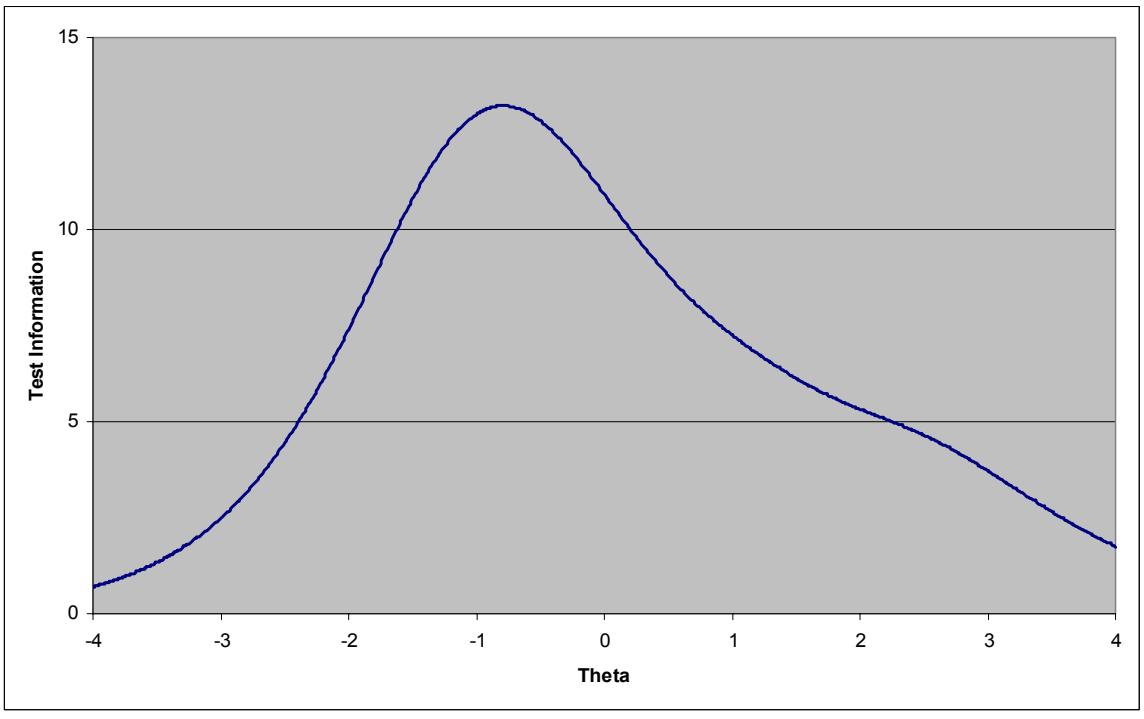


Table G-19. IRT Item Parameters for 2006-07 NECAP: Reading Grade 6 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
227778	0.7116	-2.2289	0.1671
204472	1.1038	-1.5105	0.2069
226608	0.6307	-1.4467	0.0878
226612	0.5207	-1.5339	0.1102
226614	0.8197	-1.9196	0.1562
226611	0.5667	-2.0277	0.0411
200317	0.5901	0.9148	0.2043
200318	0.6047	0.5792	0.2448
204559	0.5569	-1.0073	0.0000
200319	0.8415	0.4441	0.2637
204564	0.8619	-1.0084	0.1095
200321	0.8470	-0.6371	0.1371
200322	0.6183	-1.4614	0.0865
200320	0.1616	-0.4069	0.0741
226633	0.8646	-1.3381	0.1057
226636	0.5419	-1.1799	0.0819
226639	0.9150	-1.1654	0.1167
226638	0.7647	-0.0559	0.1868
226640	0.6706	-0.7578	0.2001
226642	0.8770	-1.4292	0.1294
226645	0.9222	-1.2115	0.0892
226646	1.0003	-1.7682	0.0860
226751	0.5333	-2.2829	0.1340
226739	0.4274	-1.5793	0.0553
226685	0.6279	-1.5347	0.1009
226689	0.7081	-0.8575	0.1111
226684	0.7162	-2.0981	0.0306
226692	0.7250	-0.8660	0.0748

a = discrimination; b = difficulty; c = guessing

Table G-20. IRT Item Parameters for 2006-07 NECAP: Reading Grade 6 Open-Response Items.

Item Number	Parameters					
	a	b	D1	D2	D3	D4
226615	0.7636	-0.2577	2.5659	0.9860	-0.8965	-2.6554
200324	0.9022	-0.2237	2.1553	0.7044	-0.7388	-2.1209
200325	0.9654	0.3870	2.0090	0.6304	-0.6563	-1.9831
226648	1.0429	0.6304	1.9662	0.6495	-0.7427	-1.8730
226651	0.9207	0.8166	2.5075	0.6637	-0.8896	-2.2816
226693	0.9915	-0.2005	2.0306	0.5728	-0.7582	-1.8453

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter

Figure G-19. Test Characteristic Curve (TCC) for 2006-07 NECAP: Reading Grade 6.

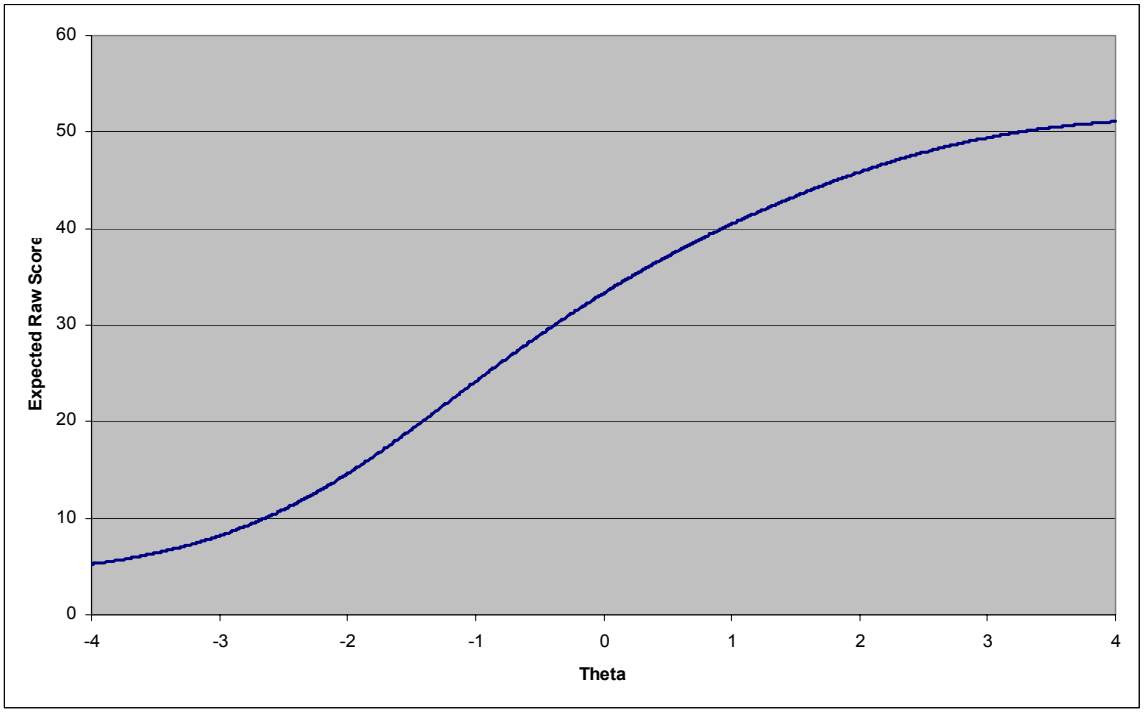


Figure G-20. Test Information Function (TIF) for 2006-07 NECAP: Reading Grade 6.

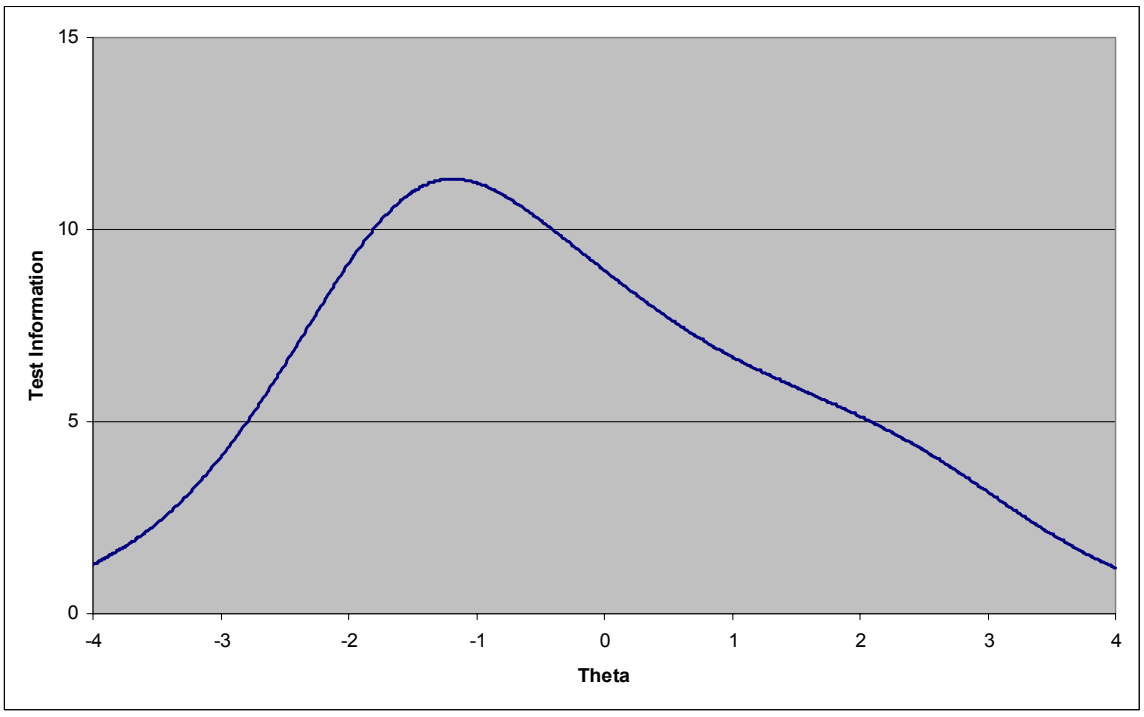


Table G-21. IRT Item Parameters for 2006-07 NECAP: Reading Grade 7 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
226914	0.8990	-1.3242	0.0936
226920	0.7686	-1.1986	0.2093
226826	0.5171	-1.1053	0.0829
226823	0.2804	-0.3079	0.1146
226822	0.4676	-0.5514	0.1611
226829	0.6562	-0.2435	0.1823
226889	0.5518	-0.8475	0.1433
226891	0.5977	-2.1978	0.1605
226893	0.6173	-0.7142	0.0839
226892	0.9241	-1.1334	0.0941
226901	0.9781	-1.4793	0.0415
226895	0.9077	-1.6471	0.0672
226897	0.8694	-2.0532	0.0587
226900	1.1566	-1.8803	0.1210
226840	0.5991	-1.5775	0.0863
226841	0.9828	-0.1655	0.0963
226844	0.7831	-0.2234	0.0756
226851	0.6529	-1.3816	0.0719
226838	0.9391	-0.9739	0.0643
226850	0.5021	-0.5053	0.0494
226856	0.6575	-0.1775	0.1158
226855	0.5629	-1.9944	0.2000
201640	0.5002	-1.6047	0.2000
201656	0.4983	-1.0671	0.1169
226864	0.5051	-1.3539	0.0702
226863	0.4661	-1.1313	0.0711
226874	0.6602	2.0869	0.1329
226876	0.6680	-2.0867	0.0000

a = discrimination; b = difficulty; c = guessing

Table G-22. IRT Item Parameters for 2006-07 NECAP: Reading Grade 7 Open-Response Items.

Item Number	Parameters					
	a	b	D1	D2	D3	D4
226836	0.8610	0.0645	2.6573	0.8126	-0.9753	-2.4947
226902	1.0153	-0.1181	2.5811	1.0057	-1.0949	-2.4919
226904	0.9664	0.1660	2.4150	0.7114	-0.8671	-2.2593
226860	1.2707	0.2051	1.8028	0.5813	-0.6554	-1.7286
226858	1.1965	0.5514	2.0102	0.6298	-0.7506	-1.8893
226877	0.9814	0.0073	2.4002	0.7601	-0.9423	-2.2180

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter

Figure G-21. Test Characteristic Curve (TCC) for 2006-07 NECAP: Reading Grade 7.

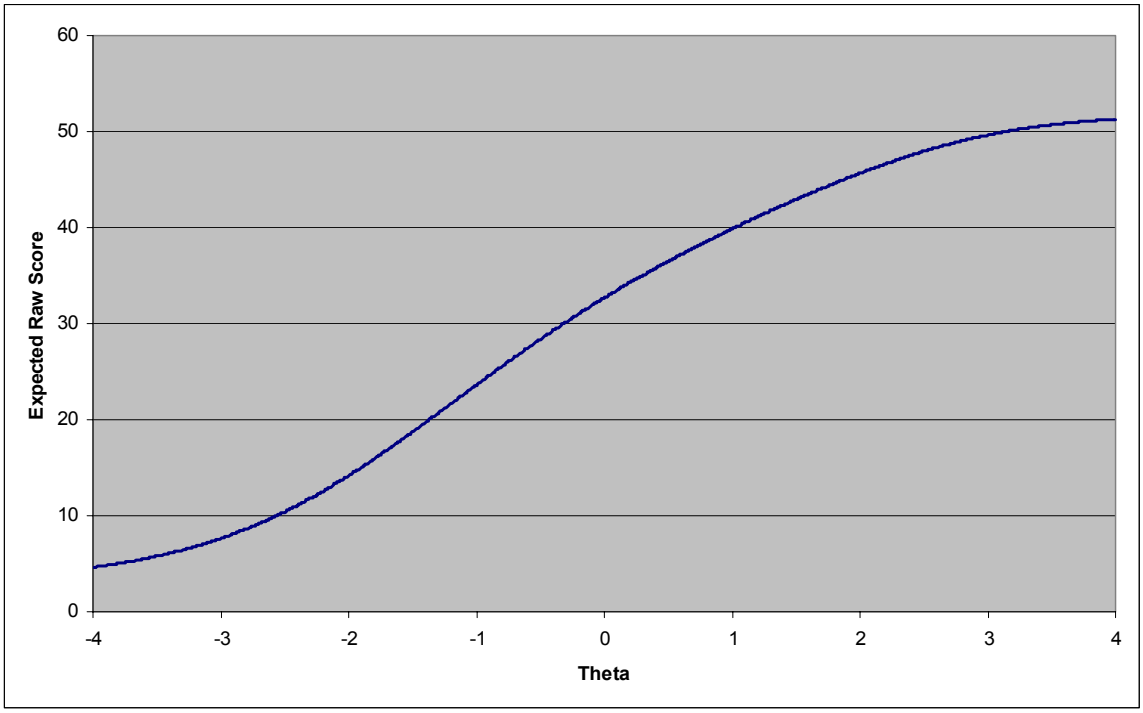


Figure G-22. Test Information Function (TIF) for 2006-07 NECAP: Reading Grade 7.

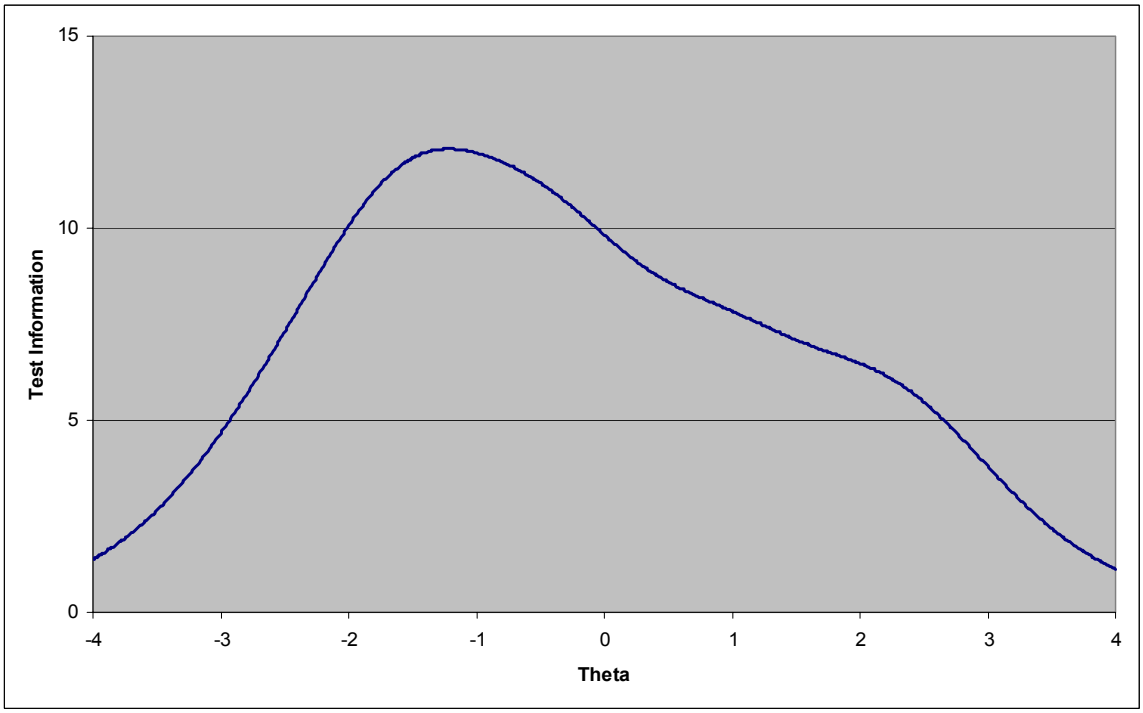


Table G-23. IRT Item Parameters for 2006-07 NECAP: Reading Grade 8 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
230171	0.7928	-2.1781	0.0217
204051	0.8100	-1.8236	0.2066
204335	0.8937	-1.0411	0.2794
204338	0.6449	-2.2540	0.0869
204343	0.6514	-1.1971	0.1666
204344	0.5027	-0.5245	0.2500
226170	0.5296	-1.2549	0.1187
226172	0.6638	-1.7992	0.0426
226173	0.6142	-2.4470	0.2000
226176	0.6254	-0.9246	0.0950
226178	0.6367	0.1046	0.1502
226177	0.8058	-2.1892	0.0000
226179	0.8070	-0.2848	0.2052
226183	0.4830	-0.7667	0.0306
226341	1.2071	-1.9932	0.0366
226325	0.6761	-1.0158	0.0990
226329	0.8675	-2.2012	0.0389
226332	0.5254	-1.6867	0.2000
226334	0.5857	-0.2743	0.0236
226336	0.7390	-1.5568	0.0661
226340	0.7626	-1.8805	0.1500
226344	0.3746	-2.3939	0.1000
226384	0.6281	-1.2962	0.0641
204053	0.7268	0.1396	0.1218
226138	0.9658	-1.4911	0.0746
226144	0.5755	-1.5501	0.0486
226145	0.5109	0.4510	0.1336
230172	0.4894	-1.6596	0.2500

a = discrimination; b = difficulty; c = guessing

Table G-24. IRT Item Parameters for 2006-07 NECAP: Reading Grade 8 Open-Response Items.

Item Number	Parameters					
	a	b	D1	D2	D3	D4
204348	1.0873	-0.3060	1.8206	0.7786	-0.6410	-1.9582
226192	1.0378	-0.5787	1.8194	0.6959	-0.6543	-1.8609
226190	1.0749	0.3686	2.0401	0.6144	-0.7778	-1.8767
226352	1.2073	0.0214	1.8276	0.6438	-0.6459	-1.8255
226349	1.0326	0.0341	2.3512	0.6145	-0.8712	-2.0945
226152	1.0120	0.0325	1.9416	0.6668	-0.6533	-1.9550

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter

Figure G-23. Test Characteristic Curve (TCC) for 2006-07 NECAP: Reading Grade 8.

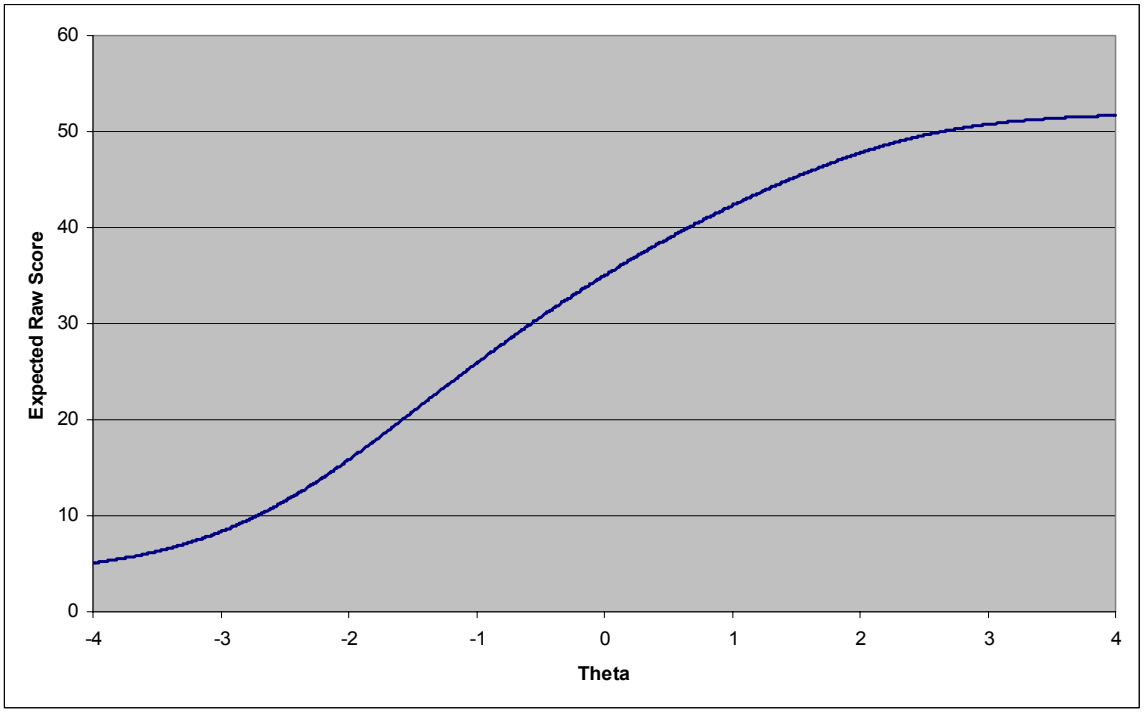


Figure G-24. Test Information Function (TIF) for 2006-07 NECAP: Reading Grade 8.

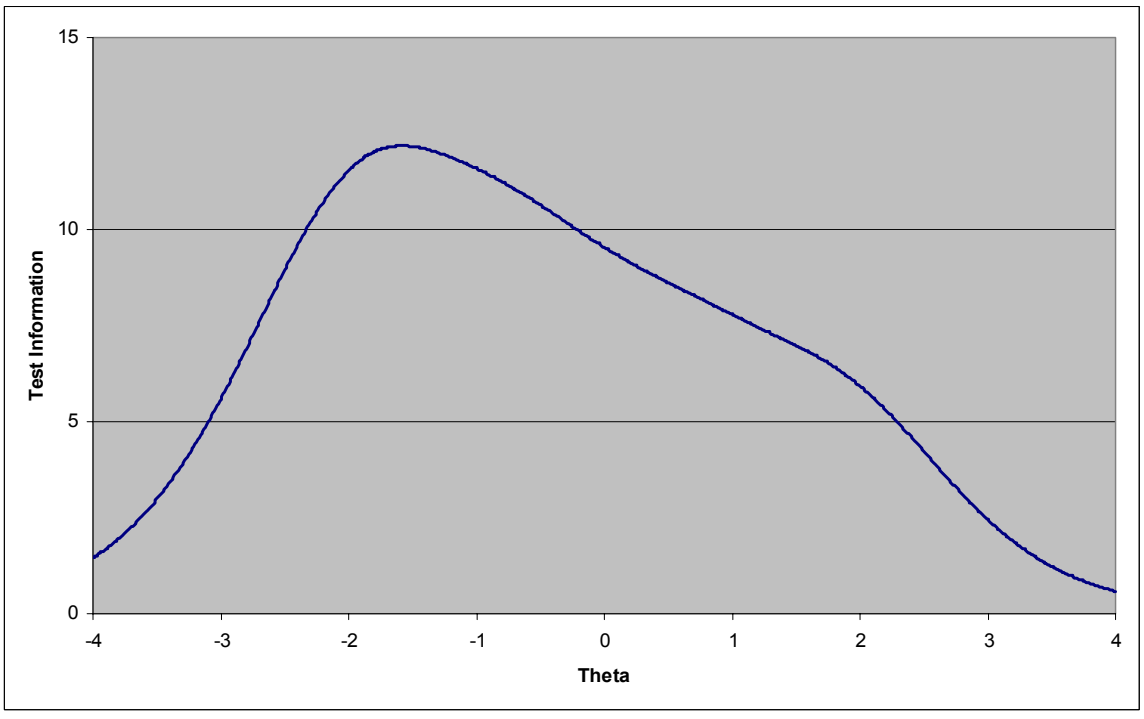


Table G-25. IRT Item Parameters for 2006-07 NECAP: Writing Grade 5 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
202808	0.8223	-2.1335	0.0471
202787	0.4532	-2.0893	0.2000
202756	0.7711	-1.2691	0.0590
202836	0.6486	-2.2741	0.2000
213387	0.5065	-1.6512	0.0701
202762	0.7032	-1.2287	0.0659
202820	0.7708	-1.5344	0.0402
202751	0.4624	-1.0626	0.1354
202749	0.6216	-1.4464	0.1053
202837	0.4974	-0.5007	0.0701

a = discrimination; b = difficulty; c = guessing

Table G-26. IRT Item Parameters for 2006-07 NECAP: Writing Grade 5 Open-Response Items.

Item Number	Parameters											
	a	b	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
201913	0.7372	-0.1622	3.0635	0.8399	-1.1249	-2.7785	N/A	N/A	N/A	N/A	N/A	N/A
201818	0.8680	-0.1286	3.1785	1.1734	-1.2264	-3.1256	N/A	N/A	N/A	N/A	N/A	N/A
201921	0.7668	0.3347	3.3835	1.0914	-1.2654	-3.2095	N/A	N/A	N/A	N/A	N/A	N/A
213649	0.4551	3.2512	5.2726	4.3254	2.5761	1.9881	0.3755	-0.2553	-1.8860	-2.6468	-4.6697	-5.0799

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter; …; D10 = 10th category step parameter

Note: Short-answer items are not included in this table because they were not part of the final calibration.

Figure G-25. Test Characteristic Curve (TCC) for 2006-07 NECAP: Writing Grade 5.

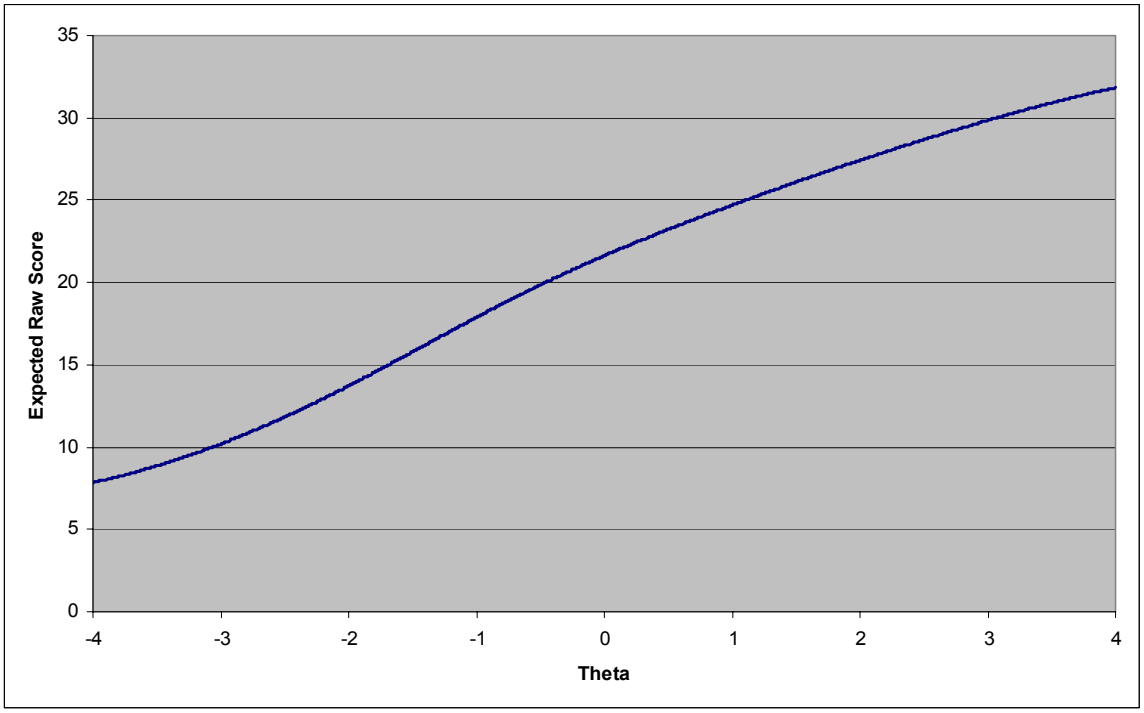


Figure G-26. Test Information Function (TIF) for 2006-07 NECAP: Writing Grade 5.

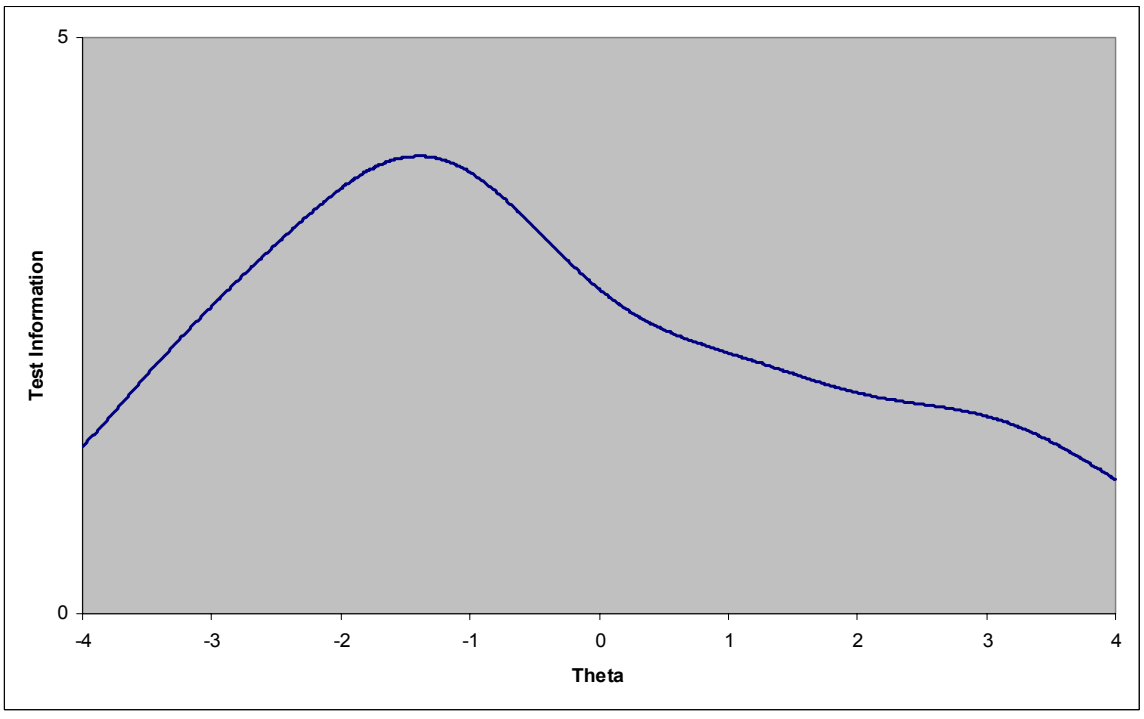


Table G-27. IRT Item Parameters for 2006-07 NECAP: Writing Grade 8 Multiple-Choice Items.

Item Number	Parameters		
	a	b	c
202604	0.7095	-1.8976	0.2000
202603	0.5617	-1.6635	0.1500
202612	0.8323	-1.5943	0.0282
202628	0.6164	-1.2577	0.1000
202617	0.6763	-1.6181	0.0635
202607	0.5823	-1.1171	0.2000
212963	0.9057	-1.3261	0.0314
202667	0.8220	-1.5152	0.0626
212951	0.4992	-1.0708	0.2000
212981	0.5952	-0.5325	0.0607

a = discrimination; b = difficulty; c = guessing

Table G-28. IRT Item Parameters for 2006-07 NECAP: Writing Grade 8 Open-Response Items.

Item Number	Parameters											
	a	b	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
202439	1.2306	-0.0376	1.8806	0.8075	-0.6468	-2.0412	N/A	N/A	N/A	N/A	N/A	N/A
202477	0.9612	-0.5072	2.3014	1.0110	-0.8314	-2.4810	N/A	N/A	N/A	N/A	N/A	N/A
202457	0.8778	-0.1445	2.2608	1.0386	-0.8184	-2.4810	N/A	N/A	N/A	N/A	N/A	N/A
213694	0.6247	1.0150	3.7864	3.2065	1.9046	1.3061	0.2641	-0.3173	-1.2943	-1.9816	-3.0210	-3.8535

a = discrimination; b = difficulty; D1 = 1st category step parameter; D2 = 2nd category step parameter; D3 = 3rd category step parameter; D4 = 4th category step parameter; …; D10 = 10th category step parameter

Note: Short-answer items are not included in this table because they were not part of the final calibration.

Figure G-27. Test Characteristic Curve (TCC) for 2006-07 NECAP: Writing Grade 8.

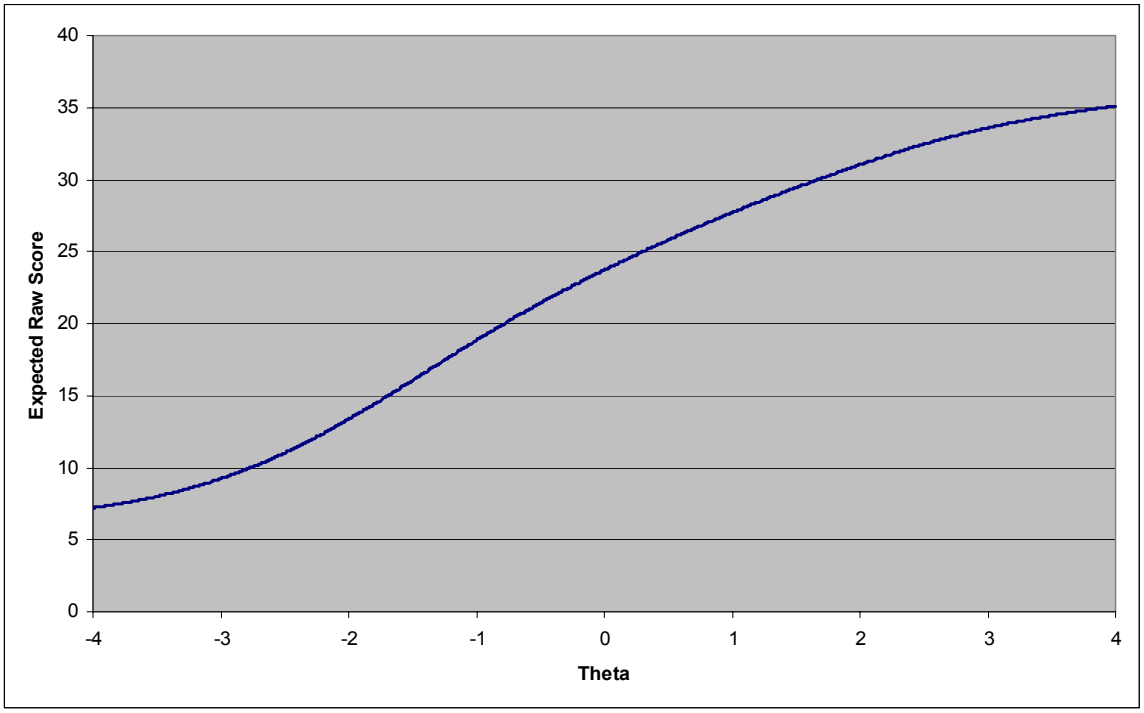
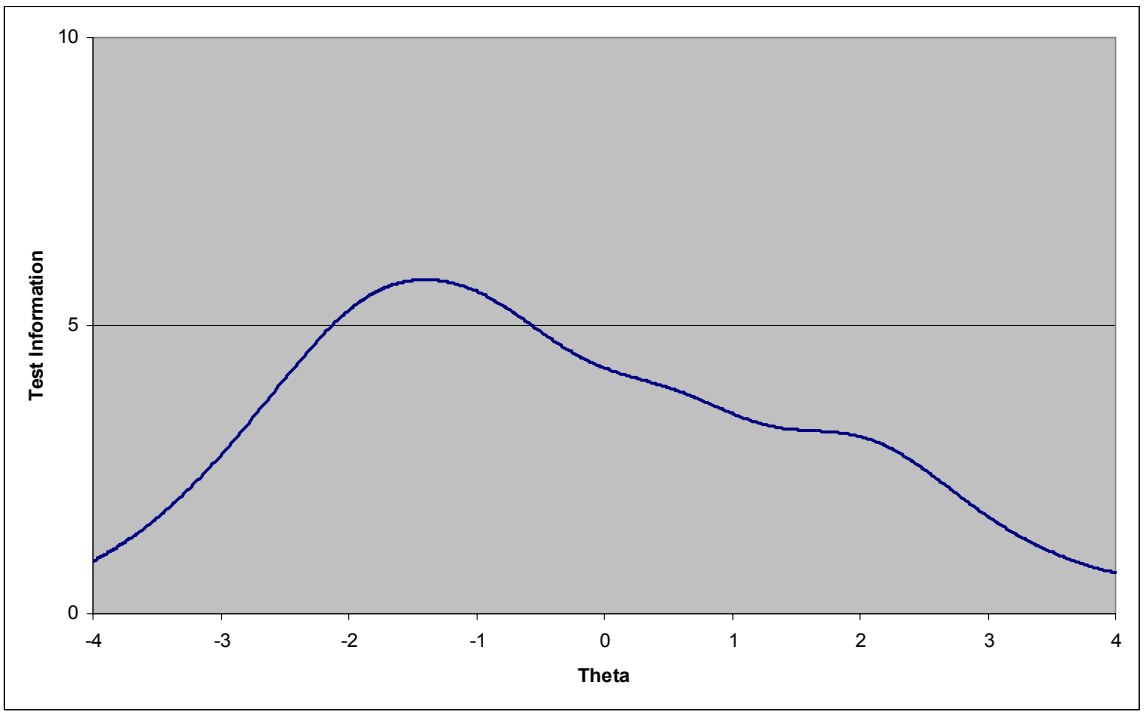


Figure G-28. Test Information Function (TIF) for 2006-07 NECAP: Writing Grade 8.



APPENDIX H

SUBGROUP RELIABILITY

Table H-1. Reliabilities of Subgroups by Grade and Subject.

Grade	Subject	Subgroup	N	(α)
3	Math	White	26958	0.92
		Native Hawaiian or Pacific Islander	11	0.94
		Hispanic or Latino	2764	0.93
		Black or African American	1396	0.93
		Asian	773	0.93
		American Indian or Alaskan Native	140	0.93
		LEP	1613	0.94
		IEP	4127	0.93
		Low SES	9794	0.93
	Reading	White	26957	0.88
		Native Hawaiian or Pacific Islander	11	0.87
		Hispanic or Latino	2718	0.88
		Black or African American	1377	0.89
		Asian	760	0.88
		American Indian or Alaskan Native	140	0.89
		LEP	1525	0.88
		IEP	4127	0.89
		Low SES	9743	0.89
4	Math	White	27321	0.92
		Native Hawaiian or Pacific Islander	N/A[1]	N/A[1]
		Hispanic or Latino	2543	0.92
		Black or African American	1362	0.92
		Asian	829	0.93
		American Indian or Alaskan Native	142	0.92
		LEP	1513	0.93
		IEP	4903	0.93
		Low SES	9559	0.92
	Reading	White	27304	0.88
		Native Hawaiian or Pacific Islander	N/A[1]	N/A[1]
		Hispanic or Latino	2475	0.88
		Black or African American	1344	0.89
		Asian	807	0.88
		American Indian or Alaskan Native	141	0.85
		LEP	1385	0.89
		IEP	4901	0.89
		Low SES	9458	0.89

(cont'd)

Table H-1. Reliabilities of Subgroups by Grade and Subject (cont'd).

Grade	Subject	Subgroup	N	(α)
5	Math	White	27780	0.91
		Native Hawaiian or Pacific Islander	121	0.91
		Hispanic or Latino	2478	0.90
		Black or African American	1368	0.90
		Asian	764	0.92
		American Indian or Alaskan Native	126	0.92
		LEP	1392	0.90
		IEP	5195	0.90
		Low SES	9460	0.90
	Reading	White	27783	0.89
		Native Hawaiian or Pacific Islander	120	0.86
		Hispanic or Latino	2411	0.88
		Black or African American	1349	0.89
		Asian	757	0.88
		American Indian or Alaskan Native	126	0.92
		LEP	1294	0.88
		IEP	5187	0.89
		Low SES	9387	0.89
	Writing	White	27730	0.73
		Native Hawaiian or Pacific Islander	121	0.67
		Hispanic or Latino	2410	0.77
		Black or African American	1343	0.77
		Asian	757	0.73
		American Indian or Alaskan Native	126	0.82
		LEP	1294	0.77
		IEP	5165	0.78
		Low SES	9364	0.76

(cont'd)

Table H-1. Reliabilities of Subgroups by Grade and Subject (cont'd).

Grade	Subject	Subgroup	N	(α)
6	Math	White	28783	0.92
		Native Hawaiian or Pacific Islander	117	0.90
		Hispanic or Latino	2501	0.91
		Black or African American	1407	0.91
		Asian	756	0.93
		American Indian or Alaskan Native	156	0.91
		LEP	1252	0.92
		IEP	5583	0.91
		Low SES	9465	0.92
	Reading	White	28773	0.88
		Native Hawaiian or Pacific Islander	117	0.85
		Hispanic or Latino	2415	0.88
		Black or African American	1395	0.89
		Asian	743	0.88
		American Indian or Alaskan Native	157	0.90
		LEP	1124	0.87
		IEP	5582	0.89
		Low SES	9373	0.89
7	Math	White	29740	0.90
		Native Hawaiian or Pacific Islander	160	0.87
		Hispanic or Latino	2745	0.87
		Black or African American	1386	0.88
		Asian	775	0.92
		American Indian or Alaskan Native	229	0.90
		LEP	1071	0.89
		IEP	5668	0.86
		Low SES	9268	0.88
	Reading	White	29763	0.89
		Native Hawaiian or Pacific Islander	159	0.87
		Hispanic or Latino	2668	0.88
		Black or African American	1369	0.89
		Asian	759	0.89
		American Indian or Alaskan Native	229	0.90
		LEP	944	0.88
		IEP	5691	0.88
		Low SES	9203	0.88

(cont'd)

Table H-1. Reliabilities of Subgroups by Grade and Subject (cont'd).

Grade	Subject	Subgroup	N	(α)
8	Math	White	30126	0.91
		Native Hawaiian or Pacific Islander	128	0.89
		Hispanic or Latino	2675	0.88
		Black or African American	1456	0.89
		Asian	731	0.93
		American Indian or Alaskan Native	173	0.91
		LEP	930	0.90
		IEP	5682	0.86
		Low SES	8878	0.89
	Reading	White	30137	0.89
		Native Hawaiian or Pacific Islander	128	0.84
		Hispanic or Latino	2586	0.89
		Black or African American	1450	0.90
		Asian	720	0.91
		American Indian or Alaskan Native	173	0.91
		LEP	808	0.90
		IEP	5698	0.89
		Low SES	8807	0.90
	Writing	White	30039	0.75
		Native Hawaiian or Pacific Islander	128	0.68
		Hispanic or Latino	2558	0.78
		Black or African American	1436	0.78
		Asian	711	0.75
		American Indian or Alaskan Native	172	0.78
		LEP	802	0.80
		IEP	5635	0.78
		Low SES	8734	0.77

[1]Only subgroups with sample size ≥10 reported

APPENDIX I

DECISION ACCURACY AND CONSISTENCY RESULTS

Table I-1a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Math, Grade 3

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.110	0.020	0.000	0.000	0.130
PP	0.021	0.166	0.040	0.000	0.227
P	0.000	0.033	0.371	0.048	0.452
PWD	0.000	0.000	0.024	0.166	0.190
Total	0.131	0.219	0.435	0.215	1.000
Overall Accuracy (sum of diagonal) = 0.814					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-1b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Math, Grade 3

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.102	0.028	0.001	0.000	0.131
PP	0.028	0.141	0.050	0.000	0.219
P	0.001	0.050	0.335	0.050	0.435
PWD	0.000	0.000	0.050	0.164	0.215
Total	0.131	0.219	0.435	0.215	1.000
Overall Consistency (sum of diagonal) = 0.742					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-1c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Math, Grade 3

Accuracy	0.814
Consistency	0.742
Kappa (k)	0.631

Table I-1d. 2006-07 NECAP Indices Conditional On Achievement Level: Math, Grade 3

Achievement Level	Accuracy	Consistency
SBP	0.846	0.780
PP	0.732	0.642
P	0.821	0.769
PWD	0.873	0.767

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-1e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Math, Grade 3

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.959	0.020	0.021	0.942
PP:P	0.928	0.040	0.033	0.899
P:PWD	0.927	0.048	0.024	0.900

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-2a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Math, Grade 4

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.134	0.023	0.000	0.000	0.157
PP	0.023	0.164	0.041	0.000	0.228
P	0.000	0.034	0.409	0.045	0.487
PWD	0.000	0.000	0.021	0.107	0.128
Total	0.157	0.220	0.471	0.152	1.000
Overall Accuracy (sum of diagonal) = 0.8145					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-2b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Math, Grade 4

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.125	0.031	0.001	0.000	0.157
PP	0.031	0.137	0.051	0.000	0.220
P	0.001	0.051	0.374	0.045	0.471
PWD	0.000	0.000	0.045	0.107	0.152
Total	0.157	0.220	0.471	0.152	1.000
Overall Consistency (sum of diagonal) = 0.7431					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-2c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Math, Grade 4

Accuracy	0.815
Consistency	0.743
Kappa (k)	0.624

Table I-2d. 2006-07 NECAP Indices Conditional On Achievement Level: Math, Grade 4

Achievement Level	Accuracy	Consistency
SBP	0.856	0.796
PP	0.720	0.625
P	0.840	0.794
PWD	0.837	0.703

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-2e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Math, Grade 4

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.954	0.023	0.023	0.936
PP:P	0.926	0.041	0.034	0.896
P:PWD	0.935	0.045	0.021	0.910

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-3a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Math, Grade 5

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.136	0.029	0.001	0.000	0.166
PP	0.029	0.122	0.044	0.000	0.194
P	0.001	0.035	0.409	0.041	0.485
PWD	0.000	0.000	0.019	0.135	0.155
Total	0.165	0.186	0.472	0.176	1.000
Overall Accuracy (sum of diagonal) = 0.802					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-3b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Math, Grade 5

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.132	0.038	0.004	0.000	0.174
PP	0.040	0.099	0.052	0.000	0.190
P	0.004	0.054	0.371	0.039	0.468
PWD	0.000	0.000	0.042	0.126	0.168
Total	0.176	0.191	0.468	0.165	1.000
Overall Consistency (sum of diagonal) = 0.729					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-3c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Math, Grade 5

Accuracy	0.802
Consistency	0.729
Kappa (k)	0.604

Table I-3d. 2006-07 NECAP Indices Conditional On Achievement Level: Math, Grade 5

Achievement Level	Accuracy	Consistency
SBP	0.821	0.751
PP	0.627	0.518
P	0.842	0.793
PWD	0.875	0.762

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-3e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Math, Grade 5

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.941	0.030	0.029	0.918
PP:P	0.920	0.044	0.036	0.889
P:PWD	0.940	0.041	0.019	0.916

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-4a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Math, Grade 6

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.157	0.031	0.000	0.000	0.188
PP	0.028	0.119	0.041	0.000	0.187
P	0.000	0.032	0.377	0.040	0.448
PWD	0.000	0.000	0.021	0.156	0.177
Total	0.185	0.181	0.438	0.195	1.000
Overall Accuracy (sum of diagonal) = 0.808					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-4b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Math, Grade 6

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.144	0.038	0.003	0.000	0.185
PP	0.038	0.095	0.048	0.000	0.181
P	0.003	0.048	0.345	0.042	0.438
PWD	0.000	0.000	0.042	0.154	0.195
Total	0.185	0.181	0.438	0.195	1.000
Overall Consistency (sum of diagonal) = 0.738					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-4c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Math, Grade 6

Accuracy	0.808
Consistency	0.738
Kappa (k)	0.627

Table I-4d. 2006-07 NECAP Indices Conditional On Achievement Level: Math, Grade 6

Achievement Level	Accuracy	Consistency
SBP	0.835	0.777
PP	0.635	0.524
P	0.840	0.788
PWD	0.883	0.786

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-4e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Math, Grade 6

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.941	0.031	0.028	0.917
PP:P	0.927	0.041	0.032	0.898
P:PWD	0.940	0.040	0.021	0.916

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-5a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Math, Grade 7

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.179	0.038	0.002	0.000	0.219
PP	0.036	0.109	0.050	0.000	0.195
P	0.002	0.039	0.357	0.039	0.436
PWD	0.000	0.000	0.019	0.132	0.151
Total	0.216	0.186	0.428	0.170	1.000
Overall Accuracy (sum of diagonal) = 0.778					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-5b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Math, Grade 7

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.163	0.046	0.008	0.000	0.216
PP	0.046	0.084	0.056	0.000	0.186
P	0.008	0.056	0.324	0.040	0.428
PWD	0.000	0.000	0.040	0.131	0.170
Total	0.216	0.186	0.428	0.170	1.000
Overall Consistency (sum of diagonal) = 0.701					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-5c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Math, Grade 7

Accuracy	0.778
Consistency	0.701
Kappa (k)	0.577

Table I-5d. 2006-07 NECAP Indices Conditional On Achievement Level: Math, Grade 7

Achievement Level	Accuracy	Consistency
SBP	0.820	0.753
PP	0.560	0.451
P	0.819	0.757
PWD	0.877	0.766

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-5e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Math, Grade 7

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.924	0.039	0.037	0.893
PP:P	0.908	0.052	0.040	0.872
P:PWD	0.943	0.039	0.019	0.920

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-6a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Math, Grade 8

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.217	0.044	0.002	0.000	0.262
PP	0.036	0.111	0.048	0.000	0.195
P	0.001	0.035	0.351	0.031	0.418
PWD	0.000	0.000	0.015	0.110	0.125
Total	0.255	0.190	0.415	0.141	1.000
Overall Accuracy (sum of diagonal) = 0.789					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-6b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Math, Grade 8

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.197	0.051	0.007	0.000	0.255
PP	0.051	0.087	0.053	0.000	0.190
P	0.007	0.053	0.324	0.032	0.415
PWD	0.000	0.000	0.032	0.109	0.141
Total	0.255	0.190	0.415	0.141	1.000
Overall Consistency (sum of diagonal) = 0.715					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-6c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Math, Grade 8

Accuracy	0.789
Consistency	0.715
Kappa (k)	0.597

Table I-6d. 2006-07 NECAP Indices Conditional On Achievement Level: Math, Grade 8

Achievement Level	Accuracy	Consistency
SBP	0.827	0.773
PP	0.569	0.457
P	0.840	0.779
PWD	0.880	0.772

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-6e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Math, Grade 8

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.917	0.045	0.038	0.884
PP:P	0.914	0.050	0.036	0.880
P:PWD	0.954	0.031	0.015	0.936

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-7a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Reading, Grade 3

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.090	0.019	0.000	0.000	0.108
PP	0.019	0.127	0.038	0.000	0.184
P	0.000	0.032	0.452	0.077	0.561
PWD	0.000	0.000	0.034	0.112	0.147
Total	0.109	0.177	0.524	0.190	1.000
Overall Accuracy (sum of diagonal) = 0.781					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-7b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Reading, Grade 3

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.082	0.026	0.001	0.000	0.109
PP	0.026	0.104	0.048	0.000	0.177
P	0.001	0.048	0.402	0.074	0.524
PWD	0.000	0.000	0.074	0.116	0.190
Total	0.109	0.177	0.524	0.190	1.000
Overall Consistency (sum of diagonal) = 0.704					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-7c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Reading, Grade 3

Accuracy	0.781
Consistency	0.704
Kappa (k)	0.542

Table I-7d. 2006-07 NECAP Indices Conditional On Achievement Level: Reading, Grade 3

Achievement Level	Accuracy	Consistency
SBP	0.8281	0.7564
PP	0.6894	0.5879
P	0.8056	0.7664
PWD	0.7659	0.6107

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-7e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Reading, Grade 3

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.962	0.019	0.019	0.947
PP:P	0.930	0.038	0.032	0.903
P:PWD	0.889	0.077	0.034	0.853

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-8a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Reading, Grade 4

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.076	0.019	0.000	0.000	0.095
PP	0.024	0.187	0.050	0.000	0.261
P	0.000	0.041	0.369	0.055	0.465
PWD	0.000	0.000	0.023	0.156	0.179
Total	0.099	0.248	0.442	0.211	1.000
Overall Accuracy (sum of diagonal) = 0.788					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-8b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Reading, Grade 4

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.069	0.029	0.001	0.000	0.099
PP	0.029	0.156	0.062	0.000	0.248
P	0.001	0.062	0.326	0.054	0.442
PWD	0.000	0.000	0.054	0.157	0.211
Total	0.099	0.248	0.442	0.211	1.000
Overall Consistency (sum of diagonal) = 0.707					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-8c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Reading, Grade 4

Accuracy	0.788
Consistency	0.707
Kappa (k)	0.575

Table I-8d. 2006-07 NECAP Indices Conditional On Achievement Level: Reading, Grade 4

Achievement Level	Accuracy	Consistency
SBP	0.796	0.695
PP	0.718	0.629
P	0.794	0.736
PWD	0.870	0.744

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-8e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Reading, Grade 4

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.957	0.020	0.024	0.940
PP:P	0.909	0.050	0.041	0.874
P:PWD	0.922	0.055	0.023	0.892

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-9a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Reading, Grade 5

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.069	0.017	0.000	0.000	0.086
PP	0.022	0.187	0.046	0.000	0.255
P	0.000	0.040	0.388	0.047	0.476
PWD	0.000	0.000	0.023	0.160	0.183
Total	0.091	0.245	0.457	0.207	1.000
Overall Accuracy (sum of diagonal) = 0.805					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-9b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Reading, Grade 5

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.063	0.027	0.001	0.000	0.091
PP	0.027	0.158	0.059	0.000	0.245
P	0.001	0.059	0.348	0.049	0.457
PWD	0.000	0.000	0.049	0.158	0.207
Total	0.091	0.245	0.457	0.207	1.000
Overall Consistency (sum of diagonal) = 0.728					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-9c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Reading, Grade 5

Accuracy	0.805
Consistency	0.728
Kappa (k)	0.599

Table I-9d. 2006-07 NECAP Indices Conditional On Achievement Level: Reading, Grade 5

Achievement Level	Accuracy	Consistency
SBP	0.801	0.697
PP	0.734	0.646
P	0.816	0.761
PWD	0.873	0.763

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-9e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Reading, Grade 5

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.961	0.017	0.022	0.945
PP:P	0.914	0.046	0.040	0.880
P:PWD	0.930	0.047	0.023	0.902

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-10a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Reading, Grade 6

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.075	0.018	0.000	0.000	0.093
PP	0.023	0.184	0.046	0.000	0.253
P	0.000	0.040	0.429	0.044	0.512
PWD	0.000	0.000	0.019	0.122	0.141
Total	0.098	0.242	0.494	0.166	1.000
Overall Accuracy (sum of diagonal) = 0.810					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-10b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Reading, Grade 6

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.069	0.028	0.001	0.000	0.098
PP	0.028	0.155	0.059	0.000	0.242
P	0.001	0.059	0.390	0.044	0.494
PWD	0.000	0.000	0.044	0.122	0.166
Total	0.098	0.242	0.494	0.166	1.000
Overall Consistency (sum of diagonal) = 0.736					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-10c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Reading, Grade 6

Accuracy	0.810
Consistency	0.736
Kappa (k)	0.600

Table I-10d. 2006-07 NECAP Indices Conditional On Achievement Level: Reading, Grade 6

Achievement Level	Accuracy	Consistency
SBP	0.805	0.706
PP	0.727	0.638
P	0.836	0.789
PWD	0.864	0.735

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-10e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Reading, Grade 6

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.959	0.018	0.023	0.943
PP:P	0.914	0.046	0.040	0.880
P:PWD	0.937	0.044	0.019	0.912

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-11a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Reading, Grade 7

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.070	0.017	0.000	0.000	0.087
PP	0.022	0.228	0.049	0.000	0.299
P	0.000	0.041	0.427	0.038	0.506
PWD	0.000	0.000	0.016	0.093	0.109
Total	0.092	0.286	0.492	0.131	1.000
Overall Accuracy (sum of diagonal) = 0.817					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-11b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Reading, Grade 7

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.064	0.027	0.000	0.000	0.092
PP	0.027	0.196	0.062	0.000	0.286
P	0.000	0.062	0.391	0.038	0.492
PWD	0.000	0.000	0.038	0.093	0.131
Total	0.092	0.286	0.492	0.131	1.000
Overall Consistency (sum of diagonal) = 0.745					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-11c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Reading, Grade 7

Accuracy	0.817
Consistency	0.745
Kappa (k)	0.609

Table I-11d. 2006-07 NECAP Indices Conditional On Achievement Level: Reading, Grade 7

Achievement Level	Accuracy	Consistency
SBP	0.803	0.700
PP	0.763	0.687
P	0.844	0.796
PWD	0.855	0.713

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-11e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Reading, Grade 7

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.961	0.017	0.022	0.945
PP:P	0.910	0.049	0.041	0.875
P:PWD	0.946	0.038	0.016	0.925

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-12a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Reading, Grade 8

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.093	0.020	0.000	0.000	0.113
PP	0.023	0.217	0.047	0.000	0.287
P	0.000	0.038	0.410	0.038	0.486
PWD	0.000	0.000	0.016	0.099	0.114
Total	0.116	0.275	0.472	0.137	1.000
Overall Accuracy (sum of diagonal) = 0.818					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-12b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Reading, Grade 8

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.086	0.030	0.000	0.000	0.116
PP	0.030	0.186	0.059	0.000	0.275
P	0.000	0.059	0.376	0.037	0.472
PWD	0.000	0.000	0.037	0.100	0.137
Total	0.116	0.275	0.472	0.137	1.000
Overall Consistency (sum of diagonal) = 0.747					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-12c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Reading, Grade 8

Accuracy	0.818
Consistency	0.747
Kappa (k)	0.622

Table I-12d. 2006-07 NECAP Indices Conditional On Achievement Level: Reading, Grade 8

Achievement Level	Accuracy	Consistency
SBP	0.822	0.738
PP	0.756	0.678
P	0.843	0.796
PWD	0.864	0.727

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-12e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Reading, Grade 8

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.957	0.020	0.023	0.939
PP:P	0.915	0.047	0.038	0.882
P:PWD	0.946	0.038	0.016	0.925

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-13a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Writing, Grade 5

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.158	0.050	0.006	0.000	0.215
PP	0.061	0.153	0.091	0.004	0.309
P	0.005	0.062	0.214	0.079	0.360
PWD	0.000	0.001	0.024	0.092	0.117
Total	0.224	0.266	0.335	0.175	1.000
Overall Accuracy (sum of diagonal) = 0.617					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-13b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Writing, Grade 5

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.140	0.064	0.020	0.001	0.224
PP	0.064	0.108	0.084	0.010	0.266
P	0.020	0.084	0.168	0.064	0.335
PWD	0.001	0.010	0.064	0.101	0.175
Total	0.224	0.266	0.335	0.175	1.000
Overall Consistency (sum of diagonal) = 0.516					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-13c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Writing, Grade 5

Accuracy	0.617
Consistency	0.516
Kappa (k)	0.343

Table I-13d. 2006-07 NECAP Indices Conditional On Achievement Level: Writing, Grade 5

Achievement Level	Accuracy	Consistency
SBP	0.738	0.622
PP	0.494	0.406
P	0.595	0.501
PWD	0.792	0.575

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-13e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Writing, Grade 5

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.878	0.056	0.066	0.831
PP:P	0.832	0.101	0.067	0.771
P:PWD	0.893	0.083	0.024	0.851

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

Table I-14a. 2006-07 NECAP Decision Accuracy -- Cross-Tabulation of True and Observed Achievement Level Proportions: Writing, Grade 8

Observed Achievement Level	True Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.154	0.052	0.003	0.000	0.208
PP	0.058	0.216	0.099	0.003	0.377
P	0.001	0.055	0.213	0.072	0.341
PWD	0.000	0.000	0.015	0.060	0.074
Total	0.213	0.324	0.329	0.134	1.000
Overall Accuracy (sum of diagonal) = 0.642					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-14b. 2006-07 NECAP Decision Consistency -- Cross-Tabulation of Observed Achievement Level Proportions for Two Parallel Forms: Writing, Grade 8

Form 2 Achievement Level	Form 1 Achievement Level				
	SBP	PP	P	PWD	Total
SBP	0.134	0.067	0.011	0.000	0.213
PP	0.067	0.159	0.091	0.007	0.324
P	0.011	0.091	0.174	0.054	0.329
PWD	0.000	0.007	0.054	0.072	0.134
Total	0.213	0.324	0.329	0.134	1.000
Overall Consistency (sum of diagonal) = 0.539					

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-14c. 2006-07 NECAP Summary of Overall Accuracy and Consistency Indices: Writing, Grade 8

Accuracy	0.642
Consistency	0.539
Kappa (k)	0.362

Table I-14d. 2006-07 NECAP Indices Conditional On Achievement Level: Writing, Grade 8

Achievement Level	Accuracy	Consistency
SBP	0.737	0.630
PP	0.575	0.490
P	0.624	0.527
PWD	0.801	0.540

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction

Table I-14e. 2006-07 NECAP Accuracy and Consistency Indices at Cutpoints: Writing, Grade 8

Cutpoint	Accuracy	False Positive	False Negative	Consistency
SBP:PP	0.886	0.055	0.059	0.843
PP:P	0.838	0.105	0.057	0.781
P:PWD	0.911	0.075	0.015	0.877

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction
False Positive = proportion of students with observed score above cutpoint and true score below cutpoint
False Negative = proportion of students with observed score below cutpoint and true score above cutpoint

APPENDIX J

STUDENT QUESTIONNAIRE DATA

Table J-1. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 1-9 – Reading: Grade 3

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
1	(blank)	3667	11	343	644	731	1799	493	18	20	49	13
	A	9802	31	342	1684	2030	5067	1021	17	21	52	10
	B	13087	41	349	812	1802	7767	2706	6	14	59	21
	C	5562	17	346	702	946	3016	898	13	17	54	16
2	(blank)	3684	11	343	657	730	1797	500	18	20	49	14
	A	8227	26	345	1024	1582	4504	1117	12	19	55	14
	B	11898	37	348	945	1678	6880	2395	8	14	58	20
	C	4165	13	347	466	654	2313	732	11	16	56	18
	D	4144	13	342	750	865	2155	374	18	21	52	9
3	(blank)	3812	12	343	706	760	1830	516	19	20	48	14
	A	18421	57	346	2043	3093	10387	2898	11	17	56	16
	B	8910	28	347	798	1450	5044	1618	9	16	57	18
	C	975	3	339	295	206	388	86	30	21	40	9
4	(blank)	3850	12	343	701	764	1876	509	18	20	49	13
	A	7926	25	341	1536	1870	3995	525	19	24	50	7
	B	11910	37	348	875	1722	7199	2114	7	14	60	18
	C	8432	26	349	730	1153	4579	1970	9	14	54	23
5	(blank)	3687	11	343	659	728	1796	504	18	20	49	14
	A	22401	70	347	2146	3518	12689	4048	10	16	57	18
	B	3295	10	344	472	653	1825	345	14	20	55	10
	C	2019	6	342	332	441	1064	182	16	22	53	9
	D	716	2	337	233	169	275	39	33	24	38	5
6	(blank)	3777	12	343	671	743	1842	521	18	20	49	14
	A	16646	52	346	1860	2854	9138	2794	11	17	55	17
	B	7356	23	346	729	1171	4280	1176	10	16	58	16
	C	1592	5	345	233	279	839	241	15	18	53	15
	D	2747	9	345	349	462	1550	386	13	17	56	14
7	(blank)	3732	12	343	663	744	1818	507	18	20	49	14
	A	18277	57	348	1462	2664	10554	3597	8	15	58	20
	B	6256	19	343	946	1244	3374	692	15	20	54	11
	C	3322	10	342	555	720	1740	307	17	22	52	9
	D	531	2	334	216	137	163	15	41	26	31	3
8	(blank)	3752	12	343	674	745	1829	504	18	20	49	13
	A	16245	51	347	1508	2576	9115	3046	9	16	56	19
	B	7804	24	346	826	1270	4534	1174	11	16	58	15
	C	1773	6	344	289	332	931	221	16	19	53	12
	D	2544	8	340	545	586	1240	173	21	23	49	7
9	(blank)	4177	13	344	695	791	2087	604	17	19	50	14
	A	8987	28	345	1085	1677	4933	1292	12	19	55	14
	B	10681	33	348	917	1564	6149	2051	9	15	58	19
	C	4665	15	346	513	768	2548	836	11	16	55	18
	D	3608	11	342	632	709	1932	335	18	20	54	9

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-2. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 1-9 – Reading: Grade 4

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
1	(blank)	3119	10	442	552	679	1460	428	18	22	47	14
	A	7854	24	441	1479	1943	3633	799	19	25	46	10
	B	16548	51	447	1106	3090	9225	3127	7	19	56	19
	C	4697	15	446	479	860	2505	853	10	18	53	18
2	(blank)	3130	10	442	557	684	1465	424	18	22	47	14
	A	6373	20	443	857	1509	3171	836	13	24	50	13
	B	14036	44	447	1083	2482	7792	2679	8	18	56	19
	C	5170	16	446	484	1010	2725	951	9	20	53	18
	D	3509	11	440	635	887	1670	317	18	25	48	9
3	(blank)	3253	10	442	572	712	1522	447	18	22	47	14
	A	18235	57	445	1939	3802	9601	2893	11	21	53	16
	B	10051	31	446	867	1902	5468	1814	9	19	54	18
	C	679	2	436	238	156	232	53	35	23	34	8
4	(blank)	3262	10	441	592	723	1510	437	18	22	46	13
	A	5899	18	438	1399	1771	2444	285	24	30	41	5
	B	13619	42	445	1071	2752	7839	1957	8	20	58	14
	C	9438	29	449	554	1326	5030	2528	6	14	53	27
5	(blank)	3167	10	442	559	693	1482	433	18	22	47	14
	A	24586	76	446	2165	4734	13285	4402	9	19	54	18
	B	2602	8	441	420	643	1287	252	16	25	49	10
	C	1402	4	439	313	364	625	100	22	26	45	7
	D	461	1	434	159	138	144	20	34	30	31	4
6	(blank)	3279	10	442	567	708	1554	450	17	22	47	14
	A	16330	51	445	1785	3203	8442	2900	11	20	52	18
	B	8136	25	445	751	1671	4440	1274	9	21	55	16
	C	1808	6	445	180	358	991	279	10	20	55	15
	D	2665	8	443	333	632	1396	304	12	24	52	11
7	(blank)	3182	10	442	552	696	1486	448	17	22	47	14
	A	19255	60	447	1425	3486	10643	3701	7	18	55	19
	B	6245	19	442	968	1495	3060	722	16	24	49	12
	C	3227	10	441	540	803	1557	327	17	25	48	10
	D	309	1	432	131	92	77	9	42	30	25	3
8	(blank)	3200	10	442	561	711	1488	440	18	22	47	14
	A	15210	47	446	1353	2718	8007	3132	9	18	53	21
	B	9451	29	445	873	1999	5241	1338	9	21	55	14
	C	1936	6	442	298	461	992	185	15	24	51	10
	D	2421	8	438	531	683	1095	112	22	28	45	5
9	(blank)	3929	12	443	607	827	1895	600	15	21	48	15
	A	10263	32	445	1081	1967	5525	1690	11	19	54	16
	B	10152	32	446	862	2067	5364	1859	8	20	53	18
	C	4681	15	445	502	918	2480	781	11	20	53	17
	D	3193	10	441	564	793	1559	277	18	25	49	9

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-3. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 1-9 – Reading: Grade 5

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
1	(blank)	2840	9	542	527	566	1305	442	19	20	46	16
	A	9051	28	542	1508	1938	4467	1138	17	21	49	13
	B	17718	54	546	1354	3281	9902	3181	8	19	56	18
	C	3078	9	545	352	519	1678	529	11	17	55	17
2	(blank)	2833	9	542	529	574	1292	438	19	20	46	15
	A	4913	15	543	730	1108	2431	644	15	23	49	13
	B	15246	47	546	1226	2690	8504	2826	8	18	56	19
	C	6163	19	546	601	1113	3403	1046	10	18	55	17
	D	3532	11	541	655	819	1722	336	19	23	49	10
3	(blank)	2990	9	542	560	593	1377	460	19	20	46	15
	A	18002	55	545	1932	3587	9538	2945	11	20	53	16
	B	11124	34	546	1052	2001	6215	1856	9	18	56	17
	C	571	2	536	197	123	222	29	35	22	39	5
4	(blank)	3047	9	542	582	602	1407	456	19	20	46	15
	A	4983	15	537	1342	1501	1914	226	27	30	38	5
	B	14674	45	545	1287	3021	8310	2056	9	21	57	14
	C	9983	31	549	530	1180	5721	2552	5	12	57	26
5	(blank)	2904	9	542	551	573	1337	443	19	20	46	15
	A	24434	75	546	2248	4463	13542	4181	9	18	55	17
	B	3200	10	543	461	715	1583	441	14	22	49	14
	C	1499	5	541	292	399	640	168	19	27	43	11
	D	650	2	538	189	154	250	57	29	24	38	9
6	(blank)	2991	9	542	549	603	1389	450	18	20	46	15
	A	15673	48	546	1600	2809	8385	2879	10	18	53	18
	B	9307	28	545	936	1859	5108	1404	10	20	55	15
	C	1991	6	544	234	404	1084	269	12	20	54	14
	D	2725	8	542	422	629	1386	288	15	23	51	11
7	(blank)	2972	9	542	539	596	1378	459	18	20	46	15
	A	19459	60	547	1370	3297	11079	3713	7	17	57	19
	B	6505	20	542	1137	1518	3106	744	17	23	48	11
	C	3445	11	542	548	809	1721	367	16	23	50	11
	D	306	1	531	147	84	68	7	48	27	22	2
8	(blank)	2947	9	542	530	596	1372	449	18	20	47	15
	A	14433	44	547	1222	2231	7884	3096	8	15	55	21
	B	10355	32	544	1036	2128	5796	1395	10	21	56	13
	C	2355	7	542	363	562	1190	240	15	24	51	10
	D	2597	8	538	590	787	1110	110	23	30	43	4
9	(blank)	3688	11	543	593	701	1765	629	16	19	48	17
	A	12586	39	546	1185	2319	6950	2132	9	18	55	17
	B	8610	26	546	809	1630	4601	1570	9	19	53	18
	C	4721	14	544	577	893	2518	733	12	19	53	16
	D	3082	9	540	577	761	1518	226	19	25	49	7

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-4. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 1-9 – Reading: Grade 6

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
1	(blank)	3487	10	641	681	834	1642	330	20	24	47	9
	A	8252	24	643	1284	1913	4256	799	16	23	52	10
	B	18894	56	647	1407	3621	11154	2712	7	19	59	14
	C	3123	9	646	313	571	1808	431	10	18	58	14
2	(blank)	3481	10	641	690	837	1635	319	20	24	47	9
	A	3086	9	643	495	746	1537	308	16	24	50	10
	B	13826	41	647	1112	2593	8032	2089	8	19	58	15
	C	8384	25	647	662	1528	5023	1171	8	18	60	14
	D	4979	15	642	726	1235	2633	385	15	25	53	8
3	(blank)	3581	11	641	720	845	1684	332	20	24	47	9
	A	16429	49	645	1674	3485	9201	2069	10	21	56	13
	B	13007	39	647	1054	2425	7685	1843	8	19	59	14
	C	739	2	636	237	184	290	28	32	25	39	4
4	(blank)	3694	11	641	753	887	1715	339	20	24	46	9
	A	4632	14	637	1154	1421	1898	159	25	31	41	3
	B	16232	48	646	1303	3454	9661	1814	8	21	60	11
	C	9198	27	650	475	1177	5586	1960	5	13	61	21
5	(blank)	3509	10	641	696	832	1655	326	20	24	47	9
	A	25192	75	646	2066	4928	14774	3424	8	20	59	14
	B	3383	10	643	508	783	1728	364	15	23	51	11
	C	1114	3	640	255	264	486	109	23	24	44	10
	D	558	2	638	160	132	217	49	29	24	39	9
6	(blank)	3549	11	641	704	853	1673	319	20	24	47	9
	A	16130	48	647	1373	3006	9342	2409	9	19	58	15
	B	11198	33	646	1052	2359	6435	1352	9	21	57	12
	C	1265	4	642	207	282	674	102	16	22	53	8
	D	1614	5	639	349	439	736	90	22	27	46	6
7	(blank)	3559	11	641	701	849	1684	325	20	24	47	9
	A	20848	62	647	1372	3707	12613	3156	7	18	60	15
	B	5340	16	642	895	1335	2619	491	17	25	49	9
	C	3654	11	642	560	949	1850	295	15	26	51	8
	D	355	1	631	157	99	94	5	44	28	26	1
8	(blank)	3587	11	641	710	864	1689	324	20	24	47	9
	A	11585	34	649	790	1704	6793	2298	7	15	59	20
	B	11624	34	645	1056	2509	6777	1282	9	22	58	11
	C	3543	10	643	436	864	1990	253	12	24	56	7
	D	3417	10	639	693	998	1611	115	20	29	47	3
9	(blank)	4144	12	642	732	936	2053	423	18	23	50	10
	A	15908	47	646	1240	3114	9443	2111	8	20	59	13
	B	6250	19	646	684	1208	3385	973	11	19	54	16
	C	4159	12	645	467	830	2302	560	11	20	55	13
	D	3295	10	641	562	851	1677	205	17	26	51	6

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-5. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 1-9 – Reading: Grade 7

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
1	(blank)	3874	11	740	752	1086	1737	299	19	28	45	8
	A	7383	21	742	1151	2198	3513	521	16	30	48	7
	B	20047	57	746	1442	4938	11417	2250	7	25	57	11
	C	3818	11	746	292	799	2271	456	8	21	59	12
2	(blank)	3885	11	740	773	1084	1738	290	20	28	45	7
	A	2204	6	741	407	621	1027	149	18	28	47	7
	B	13057	37	747	869	3086	7470	1632	7	24	57	12
	C	10214	29	746	734	2328	6005	1147	7	23	59	11
	D	5762	16	741	854	1902	2698	308	15	33	47	5
3	(blank)	4139	12	740	819	1136	1881	303	20	27	45	7
	A	15012	43	745	1407	3896	8072	1637	9	26	54	11
	B	14844	42	746	1153	3607	8543	1541	8	24	58	10
	C	1127	3	738	258	382	442	45	23	34	39	4
4	(blank)	4216	12	740	831	1196	1897	292	20	28	45	7
	A	3988	11	737	1031	1448	1374	135	26	36	34	3
	B	16832	48	745	1321	4679	9443	1389	8	28	56	8
	C	10086	29	749	454	1698	6224	1710	5	17	62	17
5	(blank)	4125	12	740	802	1157	1853	313	19	28	45	8
	A	26473	75	746	1965	6625	15129	2754	7	25	57	10
	B	3033	9	742	500	840	1397	296	16	28	46	10
	C	981	3	741	213	257	399	112	22	26	41	11
	D	510	1	738	157	142	160	51	31	28	31	10
6	(blank)	4145	12	741	780	1143	1901	321	19	28	46	8
	A	15481	44	746	1166	3677	8829	1809	8	24	57	12
	B	12696	36	745	1113	3282	7079	1222	9	26	56	10
	C	1191	3	741	201	358	531	101	17	30	45	8
	D	1609	5	738	377	561	598	73	23	35	37	5
7	(blank)	4176	12	741	789	1163	1905	319	19	28	46	8
	A	21040	60	747	1334	4814	12293	2599	6	23	58	12
	B	5234	15	742	766	1545	2551	372	15	30	49	7
	C	4202	12	741	562	1360	2051	229	13	32	49	5
	D	470	1	733	186	139	138	7	40	30	29	1
8	(blank)	4098	12	741	794	1143	1853	308	19	28	45	8
	A	9335	27	749	538	1489	5568	1740	6	16	60	19
	B	11684	33	745	932	3037	6606	1109	8	26	57	9
	C	4723	13	742	541	1403	2547	232	11	30	54	5
	D	5282	15	739	832	1949	2364	137	16	37	45	3
9	(blank)	4645	13	741	826	1249	2174	396	18	27	47	9
	A	18785	53	746	1338	4623	10776	2048	7	25	57	11
	B	4312	12	745	524	1045	2229	514	12	24	52	12
	C	3797	11	744	452	940	1991	414	12	25	52	11
	D	3583	10	741	497	1164	1768	154	14	32	49	4

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-6. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 1-9 – Reading: Grade 8

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
1	(blank)	3198	9	839	807	808	1303	280	25	25	41	9
	A	7198	20	840	1436	2128	3193	441	20	30	44	6
	B	20409	58	845	1783	4818	11557	2251	9	24	57	11
	C	4513	13	847	328	883	2628	674	7	20	58	15
2	(blank)	3206	9	839	811	807	1306	282	25	25	41	9
	A	1438	4	840	319	368	631	120	22	26	44	8
	B	11221	32	845	1060	2506	6189	1466	9	22	55	13
	C	11833	34	845	978	2706	6802	1347	8	23	57	11
	D	7620	22	841	1186	2250	3753	431	16	30	49	6
3	(blank)	3267	9	839	851	820	1310	286	26	25	40	9
	A	13397	38	844	1557	3371	7039	1430	12	25	53	11
	B	16925	48	845	1551	3899	9608	1867	9	23	57	11
	C	1729	5	838	395	547	724	63	23	32	42	4
4	(blank)	3436	10	839	891	865	1387	293	26	25	40	9
	A	3489	10	834	1138	1175	1092	84	33	34	31	2
	B	16725	47	843	1689	4713	9029	1294	10	28	54	8
	C	11668	33	849	636	1884	7173	1975	5	16	61	17
5	(blank)	3192	9	839	821	804	1287	280	26	25	40	9
	A	28026	79	845	2570	6753	15734	2969	9	24	56	11
	B	2603	7	841	489	731	1127	256	19	28	43	10
	C	991	3	839	278	234	369	110	28	24	37	11
	D	506	1	834	196	115	164	31	39	23	32	6
6	(blank)	3218	9	839	819	812	1302	285	25	25	40	9
	A	14724	42	845	1356	3354	8307	1707	9	23	56	12
	B	13940	39	844	1400	3499	7607	1434	10	25	55	10
	C	1684	5	842	274	442	835	133	16	26	50	8
	D	1752	5	836	505	530	630	87	29	30	36	5
7	(blank)	3210	9	839	814	804	1311	281	25	25	41	9
	A	21729	62	846	1657	4711	12564	2797	8	22	58	13
	B	5545	16	841	951	1586	2642	366	17	29	48	7
	C	4329	12	840	732	1370	2034	193	17	32	47	4
	D	505	1	832	200	166	130	9	40	33	26	2
8	(blank)	3237	9	839	832	818	1305	282	26	25	40	9
	A	8837	25	849	576	1329	5222	1710	7	15	59	19
	B	11032	31	845	1044	2502	6335	1151	9	23	57	10
	C	5472	15	842	663	1607	2874	328	12	29	53	6
	D	6740	19	838	1239	2381	2945	175	18	35	44	3
9	(blank)	3870	11	840	878	963	1665	364	23	25	43	9
	A	21415	61	845	1868	5061	12107	2379	9	24	57	11
	B	3038	9	843	486	695	1478	379	16	23	49	12
	C	3605	10	843	494	870	1855	386	14	24	51	11
	D	3390	10	839	628	1048	1576	138	19	31	46	4

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-7. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 3

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
10	(blank)	3880	12	341	816	848	1530	686	21	22	39	18
	A	9875	31	341	1801	2628	4273	1173	18	27	43	12
	B	12418	39	346	1093	2364	5985	2976	9	19	48	24
	C	6025	19	345	794	1084	2751	1396	13	18	46	23
11	(blank)	3926	12	341	824	854	1558	690	21	22	40	18
	A	17759	55	344	2322	3942	8200	3295	13	22	46	19
	B	9213	29	345	1056	1813	4284	2060	11	20	46	22
	C	1300	4	340	302	315	497	186	23	24	38	14
12	(blank)	3903	12	342	778	824	1595	706	20	21	41	18
	A	2975	9	338	808	872	1019	276	27	29	34	9
	B	4588	14	341	833	1270	1943	542	18	28	42	12
	C	14060	44	346	1310	2589	6807	3354	9	18	48	24
	D	6672	21	344	775	1369	3175	1353	12	21	48	20
13	(blank)	3698	11	341	757	805	1476	660	20	22	40	18
	A	22843	71	345	2716	4587	10601	4939	12	20	46	22
	B	3414	11	341	520	892	1603	399	15	26	47	12
	C	1562	5	340	335	441	615	171	21	28	39	11
	D	681	2	338	176	199	244	62	26	29	36	9
14	(blank)	3878	12	341	789	836	1570	683	20	22	40	18
	A	5965	19	340	1374	1583	2290	718	23	27	38	12
	B	11025	34	344	1276	2439	5175	2135	12	22	47	19
	C	5457	17	347	449	879	2645	1484	8	16	48	27
	D	5873	18	345	616	1187	2859	1211	10	20	49	21
15	(blank)	3823	12	341	791	839	1527	666	21	22	40	17
	A	13787	43	344	1772	2846	6357	2812	13	21	46	20
	B	10338	32	344	1168	2239	4842	2089	11	22	47	20
	C	2104	7	343	317	427	950	410	15	20	45	19
	D	2146	7	340	456	573	863	254	21	27	40	12
16	(blank)	4028	13	341	806	880	1642	700	20	22	41	17
	A	5368	17	340	1136	1440	2154	638	21	27	40	12
	B	11103	34	344	1402	2432	5187	2082	13	22	47	19
	C	7046	22	347	512	1135	3452	1947	7	16	49	28
	D	4653	14	343	648	1037	2104	864	14	22	45	19
17	(blank)	4075	13	341	818	893	1646	718	20	22	40	18
	A	3315	10	339	820	965	1229	301	25	29	37	9
	B	9327	29	344	1042	2019	4532	1734	11	22	49	19
	C	7617	24	346	722	1381	3573	1941	9	18	47	25
	D	7864	24	344	1102	1666	3559	1537	14	21	45	20
18	(blank)	4096	13	342	803	899	1669	725	20	22	41	18
	A	11251	35	345	1271	2197	5387	2396	11	20	48	21
	B	3460	11	341	653	954	1443	410	19	28	42	12
	C	9714	30	345	1057	1947	4527	2183	11	20	47	22
	D	3677	11	341	720	927	1513	517	20	25	41	14
19	(blank)	4319	13	341	872	936	1763	748	20	22	41	17
	A	13097	41	343	1855	2936	5801	2505	14	22	44	19
	B	10265	32	345	1035	2059	5025	2146	10	20	49	21
	C	2824	9	344	336	576	1271	641	12	20	45	23
	D	1693	5	340	406	417	679	191	24	25	40	11

Table J-7. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 3

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-8. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 4

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
10	(blank)	3315	10	440	780	752	1388	395	24	23	42	12
	A	8055	25	439	1983	2100	3358	614	25	26	42	8
	B	15403	48	444	1826	3198	8035	2344	12	21	52	15
	C	5573	17	444	751	1031	2755	1036	13	18	49	19
11	(blank)	3351	10	440	786	751	1407	407	23	22	42	12
	A	17509	54	442	2873	3993	8472	2171	16	23	48	12
	B	10477	32	444	1421	2124	5234	1698	14	20	50	16
	C	1009	3	439	260	213	423	113	26	21	42	11
12	(blank)	3407	11	441	760	751	1444	452	22	22	42	13
	A	2639	8	438	771	651	1020	197	29	25	39	7
	B	5453	17	440	1146	1432	2358	517	21	26	43	9
	C	16394	51	444	2058	3379	8432	2525	13	21	51	15
	D	4453	14	444	605	868	2282	698	14	19	51	16
13	(blank)	3125	10	440	711	707	1320	387	23	23	42	12
	A	24658	76	443	3557	5123	12270	3708	14	21	50	15
	B	2873	9	440	583	759	1332	199	20	26	46	7
	C	1144	4	438	312	332	436	64	27	29	38	6
	D	546	2	436	177	160	178	31	32	29	33	6
14	(blank)	3322	10	440	755	738	1411	418	23	22	42	13
	A	4553	14	438	1279	1101	1769	404	28	24	39	9
	B	11583	36	443	1784	2690	5557	1552	15	23	48	13
	C	7048	22	446	651	1220	3949	1228	9	17	56	17
	D	5840	18	443	871	1332	2850	787	15	23	49	13
15	(blank)	3211	10	440	737	731	1348	395	23	23	42	12
	A	15793	49	443	2359	3275	7773	2386	15	21	49	15
	B	10103	31	443	1519	2288	5010	1286	15	23	50	13
	C	1778	5	442	320	418	825	215	18	24	46	12
	D	1461	5	438	405	369	580	107	28	25	40	7
16	(blank)	3496	11	440	775	789	1509	423	22	23	43	12
	A	3439	11	438	1007	907	1267	258	29	26	37	8
	B	9982	31	442	1708	2408	4672	1194	17	24	47	12
	C	9684	30	445	969	1754	5268	1693	10	18	54	17
	D	5745	18	443	881	1223	2820	821	15	21	49	14
17	(blank)	3416	11	440	779	766	1447	424	23	22	42	12
	A	1872	6	435	674	511	604	83	36	27	32	4
	B	7980	25	441	1511	2091	3638	740	19	26	46	9
	C	10857	34	445	1149	2044	5776	1888	11	19	53	17
	D	8221	25	443	1227	1669	4071	1254	15	20	50	15
18	(blank)	3498	11	440	787	791	1489	431	22	23	43	12
	A	11588	36	444	1536	2413	5938	1701	13	21	51	15
	B	3653	11	439	894	985	1524	250	24	27	42	7
	C	9976	31	444	1397	2053	4948	1578	14	21	50	16
	D	3631	11	441	726	839	1637	429	20	23	45	12
19	(blank)	3646	11	440	837	820	1550	439	23	22	43	12

Table J-8. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 4

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
	A	13332	41	443	2202	2987	6353	1790	17	22	48	13
	B	11272	35	444	1549	2375	5717	1631	14	21	51	14
	C	2860	9	444	398	578	1448	436	14	20	51	15
	D	1236	4	438	354	321	468	93	29	26	38	8

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-9. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 5

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
10	(blank)	3058	9	540	844	585	1223	406	28	19	40	13
	A	9764	30	540	2311	2204	4298	951	24	23	44	10
	B	15918	49	545	2040	2846	7940	3092	13	18	50	19
	C	4039	12	545	566	617	1885	971	14	15	47	24
11	(blank)	3156	10	540	856	604	1273	423	27	19	40	13
	A	17334	53	543	2945	3433	8219	2737	17	20	47	16
	B	11256	34	544	1664	2014	5424	2154	15	18	48	19
	C	1033	3	539	296	201	430	106	29	19	42	10
12	(blank)	3077	9	540	794	604	1232	447	26	20	40	15
	A	2762	8	539	724	645	1160	233	26	23	42	8
	B	6167	19	542	1229	1322	2875	741	20	21	47	12
	C	17389	53	545	2407	3069	8520	3393	14	18	49	20
	D	3384	10	543	607	612	1559	606	18	18	46	18
13	(blank)	2921	9	540	771	571	1175	404	26	20	40	14
	A	23718	72	544	3665	4368	11334	4351	15	18	48	18
	B	3858	12	541	792	810	1805	451	21	21	47	12
	C	1398	4	540	320	316	636	126	23	23	45	9
	D	884	3	540	213	187	396	88	24	21	45	10
14	(blank)	3035	9	540	804	584	1222	425	26	19	40	14
	A	4295	13	540	1129	901	1720	545	26	21	40	13
	B	12241	37	543	2010	2356	5843	2032	16	19	48	17
	C	7587	23	546	802	1286	3903	1596	11	17	51	21
	D	5621	17	542	1016	1125	2658	822	18	20	47	15
15	(blank)	2942	9	540	782	572	1186	402	27	19	40	14
	A	17752	54	544	2607	3216	8579	3350	15	18	48	19
	B	9359	29	543	1649	1891	4441	1378	18	20	47	15
	C	1573	5	541	332	306	728	207	21	19	46	13
	D	1153	4	536	391	267	412	83	34	23	36	7
16	(blank)	3267	10	540	845	636	1338	448	26	19	41	14
	A	2240	7	537	769	506	796	169	34	23	36	8
	B	8183	25	542	1646	1757	3713	1067	20	21	45	13
	C	11560	35	546	1273	1919	5968	2400	11	17	52	21
	D	7529	23	543	1228	1434	3531	1336	16	19	47	18
17	(blank)	3142	10	540	845	616	1256	425	27	20	40	14
	A	2189	7	539	639	453	889	208	29	21	41	10
	B	10673	33	543	1828	2164	5043	1638	17	20	47	15
	C	10635	32	545	1271	1829	5400	2135	12	17	51	20
	D	6140	19	542	1178	1190	2758	1014	19	19	45	17
18	(blank)	3181	10	540	821	617	1286	457	26	19	40	14
	A	12234	37	544	1751	2257	6097	2129	14	18	50	17

Table J-9. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 5

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
	B	4239	13	539	1107	1019	1727	386	26	24	41	9
	C	9799	30	545	1347	1699	4801	1952	14	17	49	20
	D	3326	10	541	735	660	1435	496	22	20	43	15
	(blank)	3040	9	540	817	584	1220	419	27	19	40	14
	A	15478	47	544	2398	2861	7418	2801	15	18	48	18
19	B	10890	33	543	1767	2090	5297	1736	16	19	49	16
	C	2497	8	543	419	531	1140	407	17	21	46	16
	D	874	3	535	360	186	271	57	41	21	31	7

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-10. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 6

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
	(blank)	3692	11	638	1157	670	1377	488	31	18	37	13
	A	10514	31	639	2711	2240	4486	1077	26	21	43	10
10	B	16089	47	644	2410	2668	7589	3422	15	17	47	21
	C	3579	11	647	479	444	1511	1145	13	12	42	32
	(blank)	3761	11	638	1175	691	1406	489	31	18	37	13
	A	16750	49	642	3241	3187	7603	2719	19	19	45	16
11	B	12296	36	644	1975	1935	5591	2795	16	16	45	23
	C	1067	3	638	366	209	363	129	34	20	34	12
	(blank)	3675	11	638	1116	661	1396	502	30	18	38	14
	A	3859	11	640	894	765	1730	470	23	20	45	12
12	B	9523	28	643	1728	1716	4439	1640	18	18	47	17
	C	15099	45	644	2594	2606	6683	3216	17	17	44	21
	D	1718	5	641	425	274	715	304	25	16	42	18
	(blank)	3573	11	638	1085	646	1369	473	30	18	38	13
	A	23952	71	644	4098	4126	10882	4846	17	17	45	20
13	B	4163	12	641	981	818	1802	562	24	20	43	13
	C	1360	4	640	358	268	568	166	26	20	42	12
	D	826	2	639	235	164	342	85	28	20	41	10
	(blank)	3692	11	638	1123	681	1399	489	30	18	38	13
	A	4603	14	640	1217	846	1825	715	26	18	40	16
14	B	12286	36	643	2204	2200	5540	2342	18	18	45	19
	C	7489	22	645	982	1191	3664	1652	13	16	49	22
	D	5804	17	642	1231	1104	2535	934	21	19	44	16
	(blank)	3634	11	638	1110	661	1383	480	31	18	38	13
	A	18862	56	644	3035	3156	8737	3934	16	17	46	21
15	B	9484	28	642	1947	1845	4172	1520	21	19	44	16
	C	1085	3	639	294	218	433	140	27	20	40	13
	D	809	2	634	371	142	238	58	46	18	29	7
	(blank)	4171	12	639	1207	769	1624	571	29	18	39	14
	A	1637	5	635	672	328	527	110	41	20	32	7
16	B	6219	18	640	1513	1254	2597	855	24	20	42	14
	C	11856	35	645	1562	1911	5697	2686	13	16	48	23
	D	9991	29	643	1803	1760	4518	1910	18	18	45	19
17	(blank)	3970	12	639	1179	721	1536	534	30	18	39	13
	A	2760	8	640	735	552	1111	362	27	20	40	13
	B	10194	30	642	2071	1908	4398	1817	20	19	43	18

Table J-10. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 6

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
	C	10583	31	645	1434	1719	5086	2344	14	16	48	22
	D	6367	19	642	1338	1122	2832	1075	21	18	44	17
18	(blank)	3912	12	639	1153	705	1519	535	29	18	39	14
	A	12099	36	643	2137	2149	5574	2239	18	18	46	19
	B	5114	15	639	1341	1127	2078	568	26	22	41	11
	C	9341	28	645	1394	1472	4328	2147	15	16	46	23
	D	3408	10	642	732	569	1464	643	21	17	43	19
19	(blank)	4198	12	639	1206	749	1663	580	29	18	40	14
	A	16740	49	644	2717	2760	7768	3495	16	16	46	21
	B	9860	29	642	1994	1903	4333	1630	20	19	44	17
	C	2136	6	641	480	416	915	325	22	19	43	15
	D	940	3	636	360	194	284	102	38	21	30	11

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-11. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 7

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
10	(blank)	4142	12	737	1405	774	1401	562	34	19	34	14
	A	12642	36	739	3337	2625	5451	1229	26	21	43	10
	B	15531	44	743	2765	2878	7040	2848	18	19	45	18
	C	2895	8	746	476	365	1036	1018	16	13	36	35
11	(blank)	4256	12	737	1463	785	1442	566	34	18	34	13
	A	15646	44	741	3461	3073	6851	2261	22	20	44	14
	B	13748	39	743	2494	2461	6117	2676	18	18	44	19
	C	1560	4	737	565	323	518	154	36	21	33	10
12	(blank)	4054	12	738	1348	751	1387	568	33	19	34	14
	A	4347	12	741	1037	821	1861	628	24	19	43	14
	B	10595	30	742	2020	1854	4787	1934	19	17	45	18
	C	14874	42	742	3085	2965	6447	2377	21	20	43	16
	D	1340	4	737	493	251	446	150	37	19	33	11
13	(blank)	3886	11	738	1295	703	1354	534	33	18	35	14
	A	24900	71	742	4910	4696	11061	4233	20	19	44	17
	B	4196	12	740	1114	837	1665	580	27	20	40	14
	C	1411	4	739	414	261	521	215	29	18	37	15
	D	817	2	739	250	145	327	95	31	18	40	12
14	(blank)	4104	12	738	1345	773	1425	561	33	19	35	14
	A	4826	14	740	1275	876	1954	721	26	18	40	15
	B	11733	33	741	2539	2252	5025	1917	22	19	43	16
	C	8064	23	743	1330	1390	3818	1526	16	17	47	19
	D	6483	18	741	1494	1351	2706	932	23	21	42	14
15	(blank)	4071	12	738	1350	751	1409	561	33	18	35	14
	A	20490	58	743	3654	3726	9277	3833	18	18	45	19
	B	8959	25	740	2202	1847	3767	1143	25	21	42	13
	C	852	2	736	332	161	278	81	39	19	33	10
	D	838	2	731	445	157	197	39	53	19	24	5
16	(blank)	4516	13	738	1474	859	1576	607	33	19	35	13
	A	1438	4	734	635	307	379	117	44	21	26	8
	B	5135	15	739	1482	1031	1975	647	29	20	38	13
	C	11614	33	743	1914	2067	5446	2187	16	18	47	19

Table J-11. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 7

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
	D	12507	36	742	2478	2378	5552	2099	20	19	44	17
17	(blank)	4281	12	738	1404	802	1493	582	33	19	35	14
	A	4729	13	741	1180	864	1932	753	25	18	41	16
	B	10980	31	741	2412	2178	4677	1713	22	20	43	16
	C	9627	27	743	1596	1786	4452	1793	17	19	46	19
	D	5593	16	740	1391	1012	2374	816	25	18	42	15
18	(blank)	4364	12	738	1433	800	1522	609	33	18	35	14
	A	12424	35	741	2705	2389	5365	1965	22	19	43	16
	B	5775	16	739	1566	1288	2331	590	27	22	40	10
	C	9243	26	743	1528	1569	4277	1869	17	17	46	20
	D	3404	10	742	751	596	1433	624	22	18	42	18
19	(blank)	4595	13	738	1450	855	1628	662	32	19	35	14
	A	17514	50	743	3054	3165	8046	3249	17	18	46	19
	B	9736	28	741	2347	1941	4073	1375	24	20	42	14
	C	2352	7	739	654	496	915	287	28	21	39	12
	D	1013	3	734	478	185	266	84	47	18	26	8

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-12. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 8

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
10	(blank)	3413	10	835	1436	617	1020	340	42	18	30	10
	A	13315	38	837	4550	3148	4974	643	34	24	37	5
	B	15002	42	842	2926	2592	7067	2417	20	17	47	16
	C	3685	10	847	539	343	1420	1383	15	9	39	38
11	(blank)	3506	10	835	1498	632	1041	335	43	18	30	10
	A	13853	39	840	3735	2854	5763	1501	27	21	42	11
	B	15856	45	842	3335	2794	6974	2753	21	18	44	17
	C	2200	6	836	883	420	703	194	40	19	32	9
12	(blank)	3325	9	836	1371	597	1013	344	41	18	30	10
	A	5267	15	840	1339	1014	2306	608	25	19	44	12
	B	11002	31	841	2377	2013	4936	1676	22	18	45	15
	C	14131	40	840	3647	2718	5739	2027	26	19	41	14
	D	1690	5	835	717	358	487	128	42	21	29	8
13	(blank)	3265	9	835	1349	586	998	332	41	18	31	10
	A	25701	73	841	5987	4880	11027	3807	23	19	43	15
	B	4266	12	838	1324	854	1667	421	31	20	39	10
	C	1385	4	838	484	245	505	151	35	18	36	11
	D	798	2	837	307	135	284	72	38	17	36	9
14	(blank)	3347	9	836	1371	600	1032	344	41	18	31	10
	A	5298	15	839	1604	945	2078	671	30	18	39	13
	B	11091	31	840	2914	2181	4651	1345	26	20	42	12
	C	8841	25	842	1786	1677	3947	1431	20	19	45	16
	D	6838	19	840	1776	1297	2773	992	26	19	41	15
15	(blank)	3297	9	835	1370	596	999	332	42	18	30	10
	A	21908	62	842	4500	3896	9780	3732	21	18	45	17
	B	8234	23	838	2575	1812	3229	618	31	22	39	8
	C	959	3	834	428	219	253	59	45	23	26	6
	D	1017	3	831	578	177	220	42	57	17	22	4
16	(blank)	3637	10	836	1467	673	1136	361	40	19	31	10

Table J-12. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 10-19 – Math: Grade 8

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
	A	1426	4	833	701	265	406	54	49	19	28	4
	B	4386	12	837	1585	918	1619	264	36	21	37	6
	C	11272	32	841	2435	2214	5038	1585	22	20	45	14
	D	14694	41	842	3263	2630	6282	2519	22	18	43	17
	(blank)	3400	10	835	1414	604	1044	338	42	18	31	10
	A	8019	23	841	1916	1466	3395	1242	24	18	42	15
17	B	12049	34	841	2975	2245	5079	1750	25	19	42	15
	C	7944	22	841	1910	1541	3463	1030	24	19	44	13
	D	4003	11	838	1236	844	1500	423	31	21	37	11
	(blank)	3490	10	836	1420	627	1075	368	41	18	31	11
	A	12132	34	840	3082	2388	5032	1630	25	20	41	13
18	B	5429	15	837	1878	1183	1948	420	35	22	36	8
	C	10061	28	842	2122	1792	4566	1581	21	18	45	16
	D	4303	12	842	949	710	1860	784	22	17	43	18
	(blank)	3368	10	835	1407	598	1021	342	42	18	30	10
	A	19180	54	842	3898	3512	8706	3064	20	18	45	16
19	B	9288	26	839	2771	1813	3599	1105	30	20	39	12
	C	2530	7	837	865	568	884	213	34	22	35	8
	D	1049	3	834	510	209	271	59	49	20	26	6

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-13. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 20-29 – Writing: Grade 5

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
	(blank)	2943	9	536	942	775	890	336	32	26	30	11
	A	11208	34	540	2592	3155	4036	1425	23	28	36	13
20	B	14729	45	542	2634	4115	5736	2244	18	28	39	15
	C	3566	11	539	860	1043	1239	424	24	29	35	12
	D	180	1	527	107	41	23	9	59	23	13	5
	(blank)	2988	9	537	928	797	912	351	31	27	31	12
	A	17207	53	541	3546	4731	6524	2406	21	27	38	14
21	B	11403	35	541	2178	3320	4270	1635	19	29	37	14
	C	901	3	532	391	262	204	44	43	29	23	5
	D	127	0	522	92	19	14	2	72	15	11	2
	(blank)	2941	9	536	948	773	881	339	32	26	30	12
	A	23815	73	541	4455	6649	9254	3457	19	28	39	15
22	B	3899	12	538	1070	1142	1267	420	27	29	32	11
	C	1402	4	537	438	415	378	171	31	30	27	12
	D	569	2	534	224	150	144	51	39	26	25	9
	(blank)	3180	10	537	981	865	967	367	31	27	30	12
	A	4592	14	536	1471	1329	1365	427	32	29	30	9
23	B	6864	21	540	1605	1934	2447	878	23	28	36	13
	C	13801	42	543	2219	3813	5611	2158	16	28	41	16
	D	4189	13	541	859	1188	1534	608	21	28	37	15
	(blank)	3536	11	537	1060	951	1103	422	30	27	31	12
	A	8961	27	540	1960	2473	3361	1167	22	28	38	13
24	B	10998	34	542	1990	3090	4253	1665	18	28	39	15
	C	7089	22	541	1388	2004	2691	1006	20	28	38	14
	D	2042	6	535	737	611	516	178	36	30	25	9
25	(blank)	3109	10	537	961	842	948	358	31	27	30	12

Table J-13. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 20-29 – Writing: Grade 5

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
	A	6945	21	538	1840	2011	2321	773	26	29	33	11
	B	6196	19	540	1415	1759	2207	815	23	28	36	13
	C	9747	30	543	1562	2627	4018	1540	16	27	41	16
	D	6629	20	541	1357	1890	2430	952	20	29	37	14
26	(blank)	3137	10	537	977	843	951	366	31	27	30	12
	A	10214	31	542	1859	2683	3976	1696	18	26	39	17
	B	6166	19	539	1529	1745	2151	741	25	28	35	12
	C	7515	23	540	1516	2235	2846	918	20	30	38	12
	D	5594	17	540	1254	1623	2000	717	22	29	36	13
27	(blank)	3292	10	537	1026	880	1008	378	31	27	31	11
	A	9844	30	541	2139	2724	3611	1370	22	28	37	14
	B	5423	17	540	1297	1497	1904	725	24	28	35	13
	C	7127	22	541	1311	2020	2784	1012	18	28	39	14
	D	6940	21	541	1362	2008	2617	953	20	29	38	14
28	(blank)	3385	10	537	1066	903	1028	388	31	27	30	11
	A	3775	12	540	953	1001	1294	527	25	27	34	14
	B	4003	12	540	974	1087	1404	538	24	27	35	13
	C	7175	22	542	1297	1965	2799	1114	18	27	39	16
	D	14288	44	541	2845	4173	5399	1871	20	29	38	13
29	(blank)	3818	12	537	1130	1055	1196	437	30	28	31	11
	A	5904	18	538	1511	1818	1946	629	26	31	33	11
	B	3110	10	537	854	971	999	286	27	31	32	9
	C	3018	9	538	765	872	1078	303	25	29	36	10
	D	16776	51	543	2875	4413	6705	2783	17	26	40	17

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

Table J-14. 2006-07 NECAP Average Scaled Score, and Counts and Percentages within Performance Levels, of Responses to Student Survey Questions 20-29 – Writing: Grade 8

Question	Resp	NResp	%Resp	AvgSS	NSBP	NPP	NP	NPWD	%SBP	%PP	%P	%PWD
20	(blank)	3265	9	833	1217	998	793	257	37	31	24	8
	A	8429	24	837	2100	3229	2538	562	25	38	30	7
	B	18499	53	841	2897	6660	6998	1944	16	36	38	11
	C	4632	13	840	910	1641	1608	473	20	35	35	10
	D	342	1	824	205	99	32	6	60	29	9	2
21	(blank)	3271	9	833	1209	999	806	257	37	31	25	8
	A	12717	36	840	2384	4622	4555	1156	19	36	36	9
	B	16626	47	841	2671	6064	6132	1759	16	36	37	11
	C	2214	6	832	864	846	441	63	39	38	20	3
	D	339	1	824	201	96	35	7	59	28	10	2
22	(blank)	3251	9	833	1205	989	795	262	37	30	24	8
	A	26848	76	840	4353	9983	9927	2585	16	37	37	10
	B	3305	9	836	1002	1176	884	243	30	36	27	7
	C	1249	4	834	500	346	283	120	40	28	23	10
	D	514	1	830	269	133	80	32	52	26	16	6
23	(blank)	3461	10	834	1257	1073	863	268	36	31	25	8
	A	3741	11	836	1048	1350	1073	270	28	36	29	7
	B	8252	23	839	1656	2985	2823	788	20	36	34	10
	C	15752	45	841	2464	5704	5972	1612	16	36	38	10
	D	3961	11	838	904	1515	1238	304	23	38	31	8
24	(blank)	3662	10	834	1323	1140	915	284	36	31	25	8
	A	7711	22	838	1658	2967	2534	552	22	38	33	7
	B	14161	40	841	2304	5150	5232	1475	16	36	37	10
	C	7683	22	840	1451	2684	2761	787	19	35	36	10
	D	1950	6	836	593	686	527	144	30	35	27	7
25	(blank)	3351	10	834	1230	1037	818	266	37	31	24	8
	A	5246	15	836	1507	1928	1475	336	29	37	28	6
	B	7363	21	839	1480	2775	2540	568	20	38	34	8
	C	11340	32	841	1772	4070	4280	1218	16	36	38	11
	D	7867	22	840	1340	2817	2856	854	17	36	36	11
26	(blank)	3330	9	833	1235	1017	812	266	37	31	24	8
	A	10363	29	842	1577	3437	4044	1305	15	33	39	13
	B	6815	19	839	1499	2464	2218	634	22	36	33	9
	C	8008	23	838	1641	3102	2687	578	20	39	34	7
	D	6651	19	838	1377	2607	2208	459	21	39	33	7
27	(blank)	3439	10	834	1260	1056	853	270	37	31	25	8
	A	6115	17	838	1412	2169	1977	557	23	35	32	9
	B	5677	16	839	1265	1970	1900	542	22	35	33	10
	C	8455	24	840	1545	3013	3046	851	18	36	36	10
	D	11481	33	840	1847	4419	4193	1022	16	38	37	9
28	(blank)	3544	10	834	1292	1098	880	274	36	31	25	8
	A	4479	13	840	884	1508	1639	448	20	34	37	10
	B	5239	15	840	1049	1823	1830	537	20	35	35	10
	C	8116	23	840	1382	2882	3007	845	17	36	37	10
	D	13789	39	839	2722	5316	4613	1138	20	39	33	8
29	(blank)	4231	12	835	1386	1350	1137	358	33	32	27	8
	A	3953	11	834	1278	1591	944	140	32	40	24	4
	B	5766	16	838	1367	2203	1804	392	24	38	31	7
	C	4160	12	837	986	1535	1341	298	24	37	32	7
	D	17057	49	842	2312	5948	6743	2054	14	35	40	12

SBP = Substantially Below Proficient; PP = Partially Proficient; P = Proficient; PWD = Proficient with Distinction.

NECAP Student Questionnaire

Reading Questions

1. How difficult was the reading test?
   A. harder than my regular reading schoolwork
   B. about the same as my regular reading schoolwork
   C. easier than my regular reading schoolwork

2. How interesting were the reading passages?
   A. All of the passages were interesting to me.
   B. Most of the passages were interesting to me.
   C. Most of the passages were not interesting to me.
   D. None of the passages were interesting to me.

3. How hard did you try on the reading test?
   A. I tried harder on this test than I do on my regular reading schoolwork.
   B. I tried about the same as I do on my regular reading schoolwork.
   C. I did not try as hard on this test as I do on my regular reading schoolwork.

4. How difficult were the reading passages on the test?
   A. Most of the passages were more difficult than what I normally read.
   B. Most of the passages were about the same as what I usually read.
   C. Most of the passages were easier than what I normally read.

5. How often do you have language arts/reading homework?
   A. almost every day
   B. a few times a week
   C. a few times a month
   D. I usually don't have homework in language arts/reading.

6. When I am reading and come to a word I do not know, I usually
   A. figure it out myself.
   B. ask someone what the word is.
   C. skip the word.
   D. stop reading.

7. How often do you choose to read in your free time?
   A. almost every day
   B. a few times a week
   C. a few times a month
   D. I almost never read.

8. How do you find information about things that interest you?
   A. I use a computer.
   B. I look in a book.
   C. I ask someone.
   D. I watch TV or videos.

Mathematics Questions

9. How difficult was the mathematics test?
   A. harder than my regular mathematics schoolwork
   B. about the same as my regular mathematics schoolwork
   C. easier than my regular mathematics schoolwork

10. How hard did you try on the mathematics test?
   A. I tried harder on this test than I do on my regular mathematics schoolwork.
   B. I tried about the same as I do on my regular mathematics schoolwork.
   C. I did not try as hard on this test as I do on my regular mathematics schoolwork.

11. How much did you use a calculator on the test?
   A. I used it on most questions I was allowed.
   B. I used it on some questions I was allowed.
   C. I didn't use it on very many questions.
   D. I didn't have a calculator.

12. How often do you work with other students in small groups on problem-solving in mathematics?
   A. almost every day
   B. a few times a week
   C. a few times a month
   D. never or almost never

13. How often do you have mathematics homework?
   A. almost every day
   B. a few times a week
   C. a few times a month
   D. I usually don't have homework in mathematics.

14. How often do you use hands-on materials such as base-ten blocks, geoboards, cubes, rods, counters, and tangrams in mathematics class?
   A. almost every day
   B. a few times a week
   C. a few times a month
   D. a few times a year or less

15. How often do you use a calculator in mathematics class?
   A. almost every day
   B. a few times a week
   C. a few times a month
   D. a few times a year or less

16. How do you spend most of your time in mathematics class?
   A. I work by myself.
   B. I work in small groups.
   C. I do some work myself and some in small groups.
   D. The whole class works together.

17. In mathematics class, how often are you asked to explain how you solved a problem?
   A. almost every day
   B. a few times a week
   C. a few times a month
   D. a few times a year or less

Writing Questions

18. How difficult was the writing test?
    A. harder than my regular writing schoolwork
    B. about the same as my regular writing schoolwork
    C. easier than my regular writing schoolwork
    D. I did not take the writing test.

19. How hard did you try on the writing test?
    A. I tried harder on this test than I do on my regular schoolwork.
    B. I tried about the same as I do on my regular schoolwork.
    C. I did not try as hard on this test as I do on my regular schoolwork.
    D. I did not take the writing test.

20. How often are you asked to write at least one paragraph in Reading/Language Arts?
    A. more than once a day
    B. once a day
    C. a few times a week
    D. less than once a week

21. In how many of these subjects are you regularly asked to write at least a paragraph: Mathematics, Science, Social Studies, Music?
    A. one
    B. two
    C. three
    D. four

22. I choose my own topics for writing
    A. almost always.
    B. more than half the time.
    C. about half the time.
    D. less than half the time.

23. I write more than one draft
    A. almost always.
    B. more than half the time.
    C. about half the time.
    D. less than half the time.

24. I discuss my rough drafts with the teacher
    A. almost always.
    B. more than half the time.
    C. about half the time.
    D. less than half the time.

25. I discuss my rough drafts with other students
    A. almost always.
    B. more than half the time.
    C. about half the time.
    D. less than half the time.

26. What kinds of writing do you do most in school?
    A. I mostly write stories.
    B. I mostly write reports.
    C. I mostly write about things I've read.
    D. I do all kinds of writing.

Thank you very much for all of your hard work during testing and for answering these questions.

APPENDIX K

SAMPLE REPORTS

Technical Report – Appendix K: Sample Reports

Report	Grades Available	Teaching Year & Testing Year	Sample Report Included
Student Report	3-8	No	Grade 5, testing year
Item Analysis: Reading	3-8	Yes	Grade 5, testing year
Item Analysis: Math	3-8	Yes	Grade 5, testing year
Item Analysis: Writing	5 & 8	Yes	Grade 5, testing year
School Results Report	3-8	Yes	Grade 5, testing year
School Summary Report	One summary of all grades in a school	Yes	All grades, testing year
District Results Report	3-8	Yes	Grade 5, testing year
District Summary Report	One summary of all grades in a district	Yes	All grades, testing year
State Results Report	3-8	No	Grade 5, testing year
State Summary Report	One summary of all grades in the state	No	All grades, testing year

NECAP Student Report - Fall 2006

This report contains results from the Fall 2006 Beginning of Grade New England Common Assessment Program (NECAP) tests. The NECAP tests are administered to students in New Hampshire, Rhode Island, and Vermont as part of each state's statewide assessment program. The NECAP tests are designed to measure student performance on grade level expectations (GLE) developed and adopted by the three states. Specifically, the tests are designed to measure the content and skills that students are expected to have as they begin the current enrolled grade. In other words, content and skills which students have learned through the end of the previous grade.

NECAP test results are used primarily for school improvement and accountability. Achievement level results are used in the state accountability system required under No Child Left Behind. More detailed school and district results are used by schools to help improve curriculum and instruction. Individual student results are used to support information gathered through classroom instruction and assessments. Contact the school for more information on this student's overall achievement.

Achievement Levels and Corresponding Score Ranges

Student performance on the NECAP tests is classified into one of four achievement levels describing students' level of proficiency on the content and skills required through the end of the previous grade. Performance at Proficient or Proficient with Distinction indicates that the student has a level of proficiency necessary to begin working successfully on current grade content and skills. Performance below Proficient suggests that additional instruction and student work may be needed on the previous grade content and skills as the student is introduced to new content and skills at the current grade. Refer to the Achievement Level Descriptions contained in this report for a more detailed description of the achievement levels.

There is a wide range of student proficiency within each achievement level. NECAP test results are also reported as scaled scores to provide additional information about the location of student performance within each achievement level. NECAP scores are reported as three-digit scores in which the first digit represents the grade level. The remaining digits range from 00 to 80. Scores of 40 and higher indicate a level of proficiency at or above the Proficient level. Scores below 40 indicate proficiency below the Proficient level. For example, scores of 340 at grade 3, 540 at grade 5, and 740 at grade 7 each indicate Proficient performance at each grade level.

Comparisons to Other Beginning of Grade Students

The tables in the middle section of the report provide the percentage of students performing at each achievement level in the student's school, district, and statewide. Note that one or two students can have a large impact on percentages in small schools and districts. Results are not reported for schools or districts with nine (9) or fewer students.

Performance in Content Area Subcategories

This section of the report provides information about student performance on sets of items measuring particular content and skills within each test. These results can provide a general idea of relative strengths and weaknesses in comparison to other students. However, results in this section are based on small numbers of test items and should be interpreted cautiously.

Students at Proficient Level

This column shows the average performance on these items of students who performed near the beginning of the Proficient achievement level on the overall test. Students whose performance in a category falls within the range shown performed similarly to those students. This comparison can provide some information about the level of performance needed to perform at the Proficient level.

Comments about this student's writing performance

Students in grades 5 and 8 took the NECAP writing test which included a writing prompt that required students to produce a written response up to three pages long. Student responses were scored independently by two scorers. Each scorer was able to choose up to three comments from a prepared list to provide feedback about each student's performance on the writing prompt. If both scorers selected the same comment, it is listed only once.

Achievement Level Descriptions

Proficient with Distinction (Level 4) - Students performing at this level demonstrate the prerequisite knowledge and skills needed to participate and excel in instructional activities aligned with the GLE at the current grade level. Errors made by these students are few and minor and do not reflect gaps in prerequisite knowledge and skills.

Proficient (Level 3) - Students performing at this level demonstrate minor gaps in the prerequisite knowledge and skills needed to participate and perform successfully in instructional activities aligned with the GLE at the current grade level. It is likely that any gaps in prerequisite knowledge and skills demonstrated by these students can be addressed during the course of typical classroom instruction.

Partially Proficient (Level 2) - Students performing at this level demonstrate gaps in prerequisite knowledge and skills needed to participate and perform successfully in instructional activities aligned with the GLE at the current grade level. Additional instructional support may be necessary for these students to meet grade level expectations.

Substantially Below Proficient (Level 1) - Students performing at this level demonstrate extensive and significant gaps in prerequisite knowledge and skills needed to participate and perform successfully in instructional activities aligned with the GLE at the current grade level. Additional instructional support is necessary for these students to meet grade level expectations.

Student	Grade	School	District	State

Fall 2006 - Beginning of Grade 5 NECAP Test Results

Content Area	Achievement Level	Scaled Score	This Student's Achievement Level and Score
Reading			Below / Partial / Proficient / Distinction 500 — 530 — 540 — 556 — 580

Content Area	Achievement Level	Scaled Score	This Student's Achievement Level and Score
Mathematics			Below / Partial / Proficient / Distinction 500 — 533 — 540 — 554 — 580

Content Area	Achievement Level	Scaled Score	This Student's Achievement Level and Score
Writing			Below / Partial / Proficient / Distinction 500 — 528 — 540 — 555 — 580

Interpretation of Graphic Display

The line (▌) represents the student's score. The bar (▬) surrounding the score represents the probable range of scores for the student if he or she were to be tested many times. This statistic is called the standard error of measurement. See the reverse side for the achievement level descriptions.

This Student's Achievement Level Compared to Other Beginning of Grade 5 Students by School, District, and State

	Reading				Mathematics				Writing			
	Student	School	District	State	Student	School	District	State	Student	School	District	State
Proficient with Distinction												
Proficient												
Partially Proficient												
Substantially Below Proficient												

This Student's Performance in Content Area Subcategories

Reading		Possible Points	Student	Average Points Earned			
				School	District	State	Students at Proficient Level
Word ID/ Vocabulary		10					
Type of Text*	Literary	22					
	Informational	20					
Level of Comprehension*	Initial Understanding	22					
	Analysis and Interpretation	20					

Mathematics	Possible Points	Student	Average Points Earned			
			School	District	State	Students at Proficient Level
Numbers and Operations	30					
Geometry and Measurement	14					
Functions and Algebra	12					
Data, Statistics, and Probability	10					

Writing	Possible Points	Student	Average Points Earned			
			School	District	State	Students at Proficient Level
Structures of Language & Writing Conventions	10					
Short Responses	12					
Extended Response	15					

Comments about this student's writing performance:

*With the exception of Word ID/Vocabulary items, reading items are reported in two ways - Type of Text and Level of Comprehension

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Item Analysis Report
Reading

School:
District:
State:
Code:

	Released Items																	Total Test Results							
																		Subcategory Points Earned							
Released Item Number	1	2	3	4	5	6	7	8	9	10	11	12													
Content Strand	WV	WV	WV	II	WV	WV	II	II	WV	II	IA	IA													
GLE Code	4-3	4-2	4-3	4-7	4-2	4-3	4-7	4-7	4-3	4-7	4-8	4-8													
Depth of Knowledge Code	1	1	2	2	2	2	2	1	2	2	2	3													
Item Type	MC	MC	MC	MC	MC	MC	CR	MC	MC	MC	MC	CR													
Correct MC Response	A	B	C	C	B	D		D	A	B	A														
Name/Student ID Total Possible Points	1	1	1	1	1	1	4	1	1	1	1	4						10	22	20	22	20	52		
Released Item Number																									
Percent Correct/Average Score: School																									
Percent Correct/Average Score: District																									
Percent Correct/Average Score: State																									

Word ID/ Vocabulary | Literary | Informational | Initial Understanding | Analysis & Interpretation | Total Points Earned | Scaled Score | Achievement Level

LEGEND FOR THE ITEM ANALYSIS REPORT - READING

Released Items Section

Released Item Number: This number corresponds to the item number in the released item documents. This report provides complete data on items that are being released, which are approximately 25% of the items used to calculate scores.

Content Strand: The letters indicate the content strand with which the item is aligned: Word ID/Vocabulary (**WV**), Literary/Initial Understanding (**LI**), Literary/Analysis & Interpretation (**LA**), Informational/Initial Understanding (**II**), or Informational/Analysis & Interpretation (**IA**).

GLE Code: The first number indicates the grade level GLE tested. The second number indicates the GLE measured by the item.

Depth of Knowledge Code: This number indicates the Depth of Knowledge to which the item is coded.

Item Type: This indicates whether the question is multiple choice (**MC**) or constructed response (**CR**).

Correct MC Response: This is the correct letter response for multiple-choice questions.

Total Possible Points: The number indicates the maximum points awarded for the item: 1 point for a multiple-choice question and 4 points for a constructed-response question.

Student Item Results: Each student's name and state assigned student identification number are listed, followed by a score for each released item on the test included in this report.

- For multiple-choice (**MC**) questions only, a plus sign (+) indicates a correct response. If the student answered incorrectly, the letter of his or her response is indicated. An asterisk (*****) indicates that the student selected more than one response.
- For all other item types, a number indicates how many points a student earned for that item.
- For all item types, a blank space indicates that the student left the question blank. A dash (–) means that the score was invalidated and that the student received no credit for parts of the test that were administered under non-standard conditions.

Total Test Results Section

Subcategory Points Earned: These columns show the points the student earned in each content strand. The content strand points earned are based on all common items in the test and not just the released items.

Total Points Earned: This column shows the total number of points the student earned on all common items. If the row is blank in this column, it means that the student was classified as not tested.

Scaled Score: This column shows the scaled score reported as a 3-digit number. The first digit is the grade and the next two digits are a score of 00-80. If the row is blank in this column, it means that the student was classified as Not Tested. (See Achievement Level below).

Achievement Level: For Tested students, this column shows the achievement level into which the student's scores fall: **4** = Proficient with Distinction, **3** = Proficient, **2** = Partially Proficient, and **1** = Substantially Below Proficient. For Not Tested students, there are six reasons why a student did not participate: **A** = student participated in an alternate assessment in 2005-06, **L** = student is first year LEP, **W** = student withdrew from school after Oct. 1, 2006, **E** = student enrolled in school after Oct. 1, 2006, **S** = state approved special consideration, and **N** = other reason.

School/District/State Percent Correct/Average Score:

- **Released Items:** Percent correct refers to the percent of tested students who answered a multiple-choice item correctly. Average score refers to the average number of points awarded to all tested students for that constructed-response item.
- **Subcategory Points Earned:** Average score refers to the average number of points awarded to all tested students for that subcategory.

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Item Analysis Report
Mathematics

School:
District:
State:
Code:

Page

		Released Items																	Total Test Results						
	Released Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15			Subcategory Points Earned					Total Points Earned	Scaled Score	Achievement Level
	Content Strand	NO	NO	NO	NO	NO	NO	NO	NO	GM	DP	NO	GM	GM	DP	FA			Number & Operations	Geometry & Measurement	Functions & Algebra	Data, Statistics, & Probability				
	GLE Code	4-1	4-1	4-2	4-2	4-3	4-4	4-4	4-4	4-4	4-4	4-1	4-6	4-3	4-1	4-4										
	Depth of Knowledge Code	1	1	2	2	2	1	2	3	2	2	2	2	2	3	2										
	Item Type	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	SA	SA	SA	SA	CR										
	Correct MC Response	C	D	D	C	D	B	C	D	B	D															
Name/Student ID	Total Possible Points	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4			30	14	12	10		66		
	Released Item Number																									
	Percent Correct/Average Score: School																									
	Percent Correct/Average Score: District																									
	Percent Correct/Average Score: State																									

LEGEND FOR THE ITEM ANALYSIS REPORT - MATHEMATICS

Released Items Section

Released Item Number: This number corresponds to the item number in the released item documents. This report provides complete data on items that are being released, which are approximately 25% of the items used to calculate scores.

Content Strand: The letters indicate the content strand with which the item is aligned: Numbers & Operations (**NO**), Geometry & Measurement (**GM**), Functions & Algebra (**FA**), or Data, Statistics, & Probability (**DP**).

GLE Code: The first number indicates the grade level GLE tested. The second number indicates the GLE measured by the item.

Depth of Knowledge Code: This number indicates the Depth of Knowledge to which the item is coded.

Item Type: This indicates whether the question is multiple choice (**MC**), short answer (**SA**), or constructed response (**CR**).

Correct MC Response: This is the correct letter response for multiple-choice questions.

Total Possible Points: The number indicates the maximum points awarded for the item: 1 point for a multiple-choice question; 0-2 points for a short-answer question; and 0-4 points for a constructed-response question (grades 5-8 only).

Student Item Results: Each student's name and state assigned student identification number are listed, followed by a score for each released item on the test included in this report.

- For multiple-choice (**MC**) questions only, a plus sign (+) indicates a correct response. If the student answered incorrectly, the letter of his or her response is indicated. An asterisk (*) indicates that the student selected more than one response.
- For all other item types, a number indicates how many points a student earned for that item.
- For all item types, a blank space indicates that the student left the question blank. A dash (–) means that the score was invalidated and that the student received no credit for parts of the test that were administered under non-standard conditions.

Total Test Results Section

Subcategory Points Earned: These columns show the points the student earned in each content strand. The content strand points earned are based on all common items in the test and not just the released items.

Total Points Earned: This column shows the total number of points the student earned on all common items. If the row is blank in this column, it means that the student was classified as not tested.

Scaled Score: This column shows the scaled score reported as a 3-digit number. The first digit is the grade and the next two digits are a score of 00-80. If the row is blank in this column, it means that the student was classified as Not Tested. (See Achievement Level below).

Achievement Level: For Tested students, this column shows the achievement level into which the student's scores fall: **4** = Proficient with Distinction, **3** = Proficient, **2** = Partially Proficient, and **1** = Substantially Below Proficient. For Not Tested students, there are six reasons why a student did not participate: **A** = student participated in an alternate assessment in 2005-06, **L** = student is first year LEP, **W** = student withdrew from school after Oct. 1, 2006, **E** = student enrolled in school after Oct. 1, 2006, **S** = state approved special consideration, and **N** = other reason.

School/District/State Percent Correct/Average Score:

- **Released Items:** Percent correct refers to the percent of tested students who answered a multiple-choice item correctly. Average score refers to the average number of points awarded to all tested students for that short-answer or constructed-response item.
- **Subcategory Points Earned:** Average score refers to the average number of points awarded to all tested students for that subcategory.

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Item Analysis Report
Writing

School:
District:
State:
Code:

		Released Items																	Total Test Results						
	Released Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Subcategory Points Earned					Total Points Earned	Scaled Score	Achievement Level
	Content Strand	SC	SC	SC	SC	SC	SC	SC	SC	SC	SC	NW	IR	RW	LR	LR	LR	LR	Structures of Language & Writing Conventions	Short Responses	Extended Response					
	GLE Code	4-9	4-9	4-9	4-9	4-9	4-1	4-9	4-1	4-9	4-1	4-4	4-2	4-8	4-3	4-3	4-3	4-3								
	Depth of Knowledge Code	1	1	1	1	1	2	1	2	1	2	2	2	2	3	3	3	3								
	Item Type	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	CR	CR	CR	SA	SA	SA	ER								
	Correct MC Response	C	B	B	A	D	C	C	C	D	B															
Name/Student ID	Total Possible Points	1	1	1	1	1	1	1	1	1	1	4	4	4	1	1	1	12	10	12	15			37		
	Released Item Number																									
	Percent Correct/Average Score: School																									
	Percent Correct/Average Score: District																									
	Percent Correct/Average Score: State																									

LEGEND FOR THE ITEM ANALYSIS REPORT - GRADE 5 WRITING

Released Items Section

Released Item Number: This number corresponds to the item number in the released item documents. The complete writing test, which is made up entirely of common items, is being released. This report provides complete data on those items.

Content Strand: The letters indicate the content strand with which the item is aligned: Structures of Language & Writing Conventions (**SC**), Short Responses — Narative Writing (**NW**), Response to Informational Text (**IR**), Report Writing (**RW**), Extended Response — Response to Literary Text (**LR**).

GLE Code: The first number indicates the grade level GLE tested. The second number indicates the GLE measured by the item.

Depth of Knowledge Code: This number indicates the Depth of Knowledge to which the item is coded.

Item Type: This indicates whether the question is multiple choice (**MC**), constructed response (**CR**), short answer (**SA**), or writing prompt (**ER**).

Correct MC Response: This is the correct letter response for multiple-choice questions.

Total Possible Points: The number indicates the maximum points awarded for the item: 1 point for a multiple-choice question, 1 point for a short-answer question, 0-4 points for a constructed-response question, and 0-12 points for the writing prompt.

Student Item Results: Each student's name and state assigned student identification number are listed, followed by a score for each released item on the test included in this report.

- For multiple-choice (**MC**) questions only, a plus sign (+) indicates a correct response. If the student answered incorrectly, the letter of his or her response is indicated. An asterisk (*) indicates that the student selected more than one response.
- For all other item types, a number indicates how many points a student earned for that item.
- For all item types, a blank space indicates that the student left the question blank. A dash (–) means that the score was invalidated and that the student received no credit for parts of the test that were administered under non-standard conditions.

Total Test Results Section

Subcategory Points Earned: These columns show the points the student earned in each content strand. The content strand points earned are based on all items in the test.

Total Points Earned: This column shows the total number of points the student earned on all common items. If the row is blank in this column, it means that the student was classified as not tested.

Scaled Score: This column shows the scaled score reported as a 3-digit number. The first digit is the grade and the next two digits are a score of 00-80. If the row is blank in this column, it means that the student was classified as Not Tested. (See Achievement Level below).

Achievement Level: For Tested students, this column shows the achievement level into which the student's scores fall: **4** = Proficient with Distinction, **3** = Proficient, **2** = Partially Proficient, and **1** = Substantially Below Proficient. For Not Tested students, there are six reasons why a student did not participate: **A** = student participated in an alternate assessment in 2005-06, **L** = student is first year LEP, **W** = student withdrew from school after Oct. 1, 2006, **E** = student enrolled in school after Oct. 1, 2006, **S** = state approved special consideration, and **N** = other reason.

School/District/State Percent Correct/Average Score:

- **Released Items:** Percent correct refers to the percent of tested students who answered a multiple-choice item correctly. Average score refers to the average number of points awarded to all tested students for that short-answer or constructed-response item or the writing prompt.
- **Subcategory Points Earned:** Average score refers to the average number of points awarded to all tested students for that subcategory.

About The New England Common Assessment Program

This report highlights results from the Fall 2006 Beginning of Grade New England Common Assessment Program (NECAP) tests. The NECAP tests are administered to students in New Hampshire, Rhode Island, and Vermont as part of each state's statewide assessment program. NECAP test results are used primarily for school improvement and accountability. Achievement level results are used in the state accountability system required under No Child Left Behind (NCLB). More detailed school and district results are used by schools to help improve curriculum and instruction. Individual student results are used to support information gathered through classroom instruction and assessments.

NECAP tests in reading and mathematics are administered to students in grades 3 through 8 and writing tests are administered to students in grades 5 and 8. The NECAP tests are designed to measure student performance on grade level expectations (GLE) developed and adopted by the three states. Specifically, the tests are designed to measure the content and skills that students are expected to have as they begin the school year in their current grade – in other words, the content and skills which students have learned through the end of the previous grade.

Each test contains a mix of multiple-choice and constructed-response questions. Constructed-response questions require students to develop their own answers to questions. On the mathematics test, students may be required to provide the correct answer to a computation or word problem, draw or interpret a chart or graph, or explain how they solved a problem. On the reading test, students may be required to make a list or write a few paragraphs to answer a question related to a literary or informational passage. On the writing test, students are required to provide a single extended response of 1-3 pages and three shorter responses to questions measuring different types of writing.

This report contains a variety of school- and/or district-, and state-level assessment results for the NECAP tests administered at a grade level. Achievement level distributions and mean scaled scores are provided for all students tested as well as for subgroups of students classified by demographics or program participation. The report also contains comparative information on school and district performance on subtopics within each content area tested.

In addition to this report of grade level results, schools and districts will also receive Summary Reports, Item Analysis Reports, Released Item support materials, and student-level data files containing NECAP results. Together, these reports and data constitute a rich source of information to support local decisions in curriculum, instruction, assessment, and professional development. Over time, this information can also strengthen school's and district's evaluation of their ongoing improvement efforts.

Fall 2006
Beginning of Grade 5
NECAP Tests

Grade 5 Students in 2006-2007

School Results

School:

District:

Code:

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Grade Level Summary Report

School:
District:
State:
Code:

Schools and districts administered all NECAP tests to every enrolled student with the following exceptions: students who participated in the alternate assessment for the 2005-06 school year, first year LEP students, students who withdrew from the school after October 1, 2006, students who enrolled in the school after October 1, 2006, students for whom a special consideration was granted through the state Department of Education, and other students for reasons not approved. On this page, and throughout this report, results are only reported for groups of students that are larger than nine (9).

PARTICIPATION in NECAP	Number									Percentage								
	School			District			State			School			District			State		
Students enrolled on or after October 1																		
	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing
Students tested																		
Students not tested in NECAP																		
State Approved																		
Alternate Assessment																		
First Year LEP																		
Withdrew After October 1																		
Enrolled After October 1																		
Special Consideration																		
Other																		

NECAP RESULTS

	School												District						State					
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%		N	%	%	%	%		N	%	%	%	%	
READING																									
MATH																									
WRITING																									

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Throughout this report, percentages may not total 100 since each percentage is rounded to the nearest whole number.

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Reading Results

School:
District:
State:
Code:

Proficient with Distinction (Level 4)
Student's performance demonstrates an ability to read and comprehend grade-appropriate text. Student is able to analyze and interpret literary and informational text. Student offers insightful observations/assertions that are well supported by references to the text. Student uses range of vocabulary strategies and breadth of vocabulary knowledge to read and comprehend a wide variety of texts.

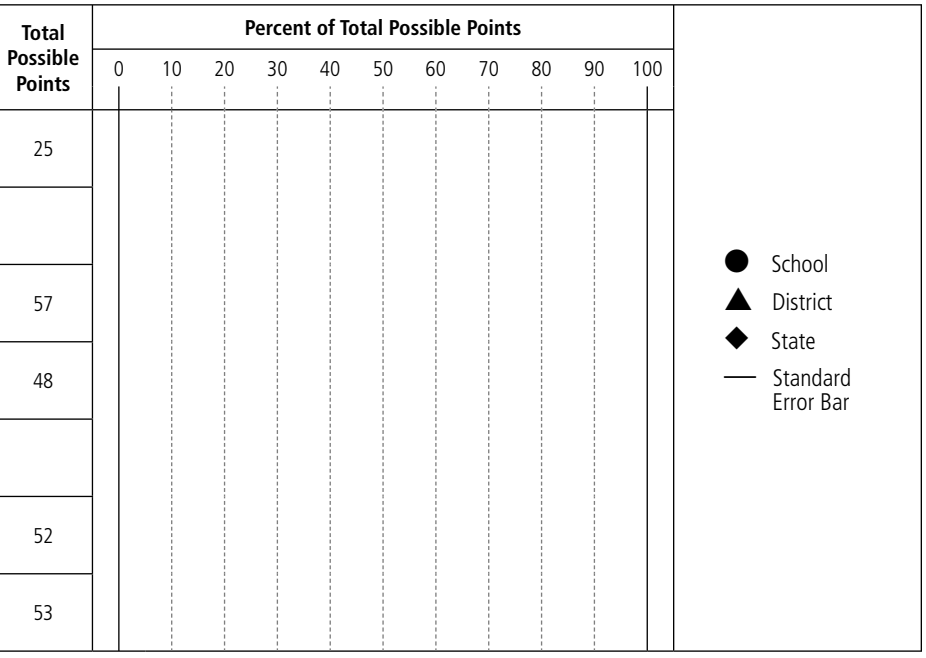
Proficient (Level 3)
Student's performance demonstrates an ability to read and comprehend grade-appropriate text. Student is able to analyze and interpret literary and informational text. Student makes and supports relevant assertions by referencing text. Student uses vocabulary strategies and breadth of vocabulary knowledge to read and comprehend text.

Partially Proficient (Level 2)
Student's performance demonstrates an inconsistent ability to read and comprehend grade-appropriate text. Student attempts to analyze and interpret literary and informational text. Student may make and/or support assertions by referencing text. Student's vocabulary knowledge and use of strategies may be limited and may impact the ability to read and comprehend text.

Substantially Below Proficient (Level 1)
Student's performance demonstrates minimal ability to derive/construct meaning from grade-appropriate text. Student may be able to recognize story elements and text features. Student's limited vocabulary knowledge and use of strategies impacts the ability to read and comprehend text.

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
SCHOOL													
2005-06													
2006-07													
2007-08 Cumulative Total													
DISTRICT													
2005-06													
2006-07													
2007-08 Cumulative Total													
STATE													
2005-06													
2006-07													
2007-08 Cumulative Total													

Subtopic	Total Possible Points
Word ID/Vocabulary	25
Type of Text	
Literary	57
Informational	48
Level of Comprehension	
Initial Understanding	52
Analysis & Interpretation	53



Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Disaggregated Reading Results

School:
District:
State:
Code:

REPORTING CATEGORIES	School													District						State					
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	N	N	%	%	%	%	N	N	%	%	%	%	N
All Students																									
Gender																									
Male																									
Female																									
Not Reported																									
Primary Race/Ethnicity																									
American Indian or Alaskan Native																									
Asian																									
Black or African American																									
Hispanic or Latino																									
Native Hawaiian or Pacific Islander																									
White (non-Hispanic)																									
No Primary Race/Ethnicity Reported																									
LEP Status																									
Currently receiving LEP services																									
Former LEP student - monitoring year 1																									
Former LEP student - monitoring year 2																									
All Other Students																									
IEP																									
Students with an IEP																									
All Other Students																									
SES																									
Economically Disadvantaged Students																									
All Other Students																									
Migrant																									
Migrant Students																									
All Other Students																									
Title I																									
Students Receiving Title I Services																									
All Other Students																									

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

NOTE: Some numbers may have been left blank because fewer than ten (10) students were tested.

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Mathematics Results

School:
District:
State:
Code:

Proficient with Distinction (Level 4)
Student's problem solving demonstrates logical reasoning with strong explanations that include both words and proper mathematical notation. Student's work exhibits a high level of accuracy, effective use of a variety of strategies, and an understanding of mathematical concepts within and across grade level expectations. Student demonstrates the ability to move from concrete to abstract representations.

Proficient (Level 3)
Student's problem solving demonstrates logical reasoning with appropriate explanations that include both words and proper mathematical notation. Student uses a variety of strategies that are often systematic. Computational errors do not interfere with communicating understanding. Student demonstrates conceptual understanding of most aspects of the grade level expectations.

Partially Proficient (Level 2)
Student's problem solving demonstrates logical reasoning and conceptual understanding in some, but not all, aspects of the grade level expectations. Many problems are started correctly, but computational errors may get in the way of completing some aspects of the problem. Student uses some effective strategies. Student's work demonstrates that he or she is generally stronger with concrete than abstract situations.

Substantially Below Proficient (Level 1)
Student's problem solving is often incomplete, lacks logical reasoning and accuracy, and shows little conceptual understanding in most aspects of the grade level expectations. Student is able to start some problems but computational errors and lack of conceptual understanding interfere with solving problems successfully.

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
SCHOOL 2005-06 **2006-07** 2007-08 Cumulative Total													
DISTRICT 2005-06 **2006-07** 2007-08 Cumulative Total													
STATE 2005-06 **2006-07** 2007-08 Cumulative Total													

Subtopic	Total Possible Points	Percent of Total Possible Points: 0 10 20 30 40 50 60 70 80 90 100
Number & Operations	73	
Geometry & Measurement	33	
Functions & Algebra	30	
Data, Statistics, & Probability	26	

● School
▲ District
◆ State
— Standard Error Bar

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Disaggregated Mathematics Results

School:
District:
State:
Code:

REPORTING CATEGORIES	School													District						State					
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	N	N	%	%	%	%	N	N	%	%	%	%	N
All Students																									
Gender																									
Male																									
Female																									
Not Reported																									
Primary Race/Ethnicity																									
American Indian or Alaskan Native																									
Asian																									
Black or African American																									
Hispanic or Latino																									
Native Hawaiian or Pacific Islander																									
White (non-Hispanic)																									
No Primary Race/Ethnicity Reported																									
LEP Status																									
Currently receiving LEP services																									
Former LEP student - monitoring year 1																									
Former LEP student - monitoring year 2																									
All Other Students																									
IEP																									
Students with an IEP																									
All Other Students																									
SES																									
Economically Disadvantaged Students																									
All Other Students																									
Migrant																									
Migrant Students																									
All Other Students																									
Title I																									
Students Receiving Title I Services																									
All Other Students																									

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

NOTE: Some numbers may have been left blank because fewer than ten (10) students were tested.

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Writing Results

School:
District:
State:
Code:

Proficient with Distinction (Level 4)
Student's writing demonstrates an ability to respond to prompt/task with clarity and insight. Focus is well developed and maintained throughout response. Response demonstrates use of strong organizational structures. A variety of elaboration strategies is evident. Sentence structures and language choices are varied and used effectively. Response demonstrates control of conventions; minor errors may occur.

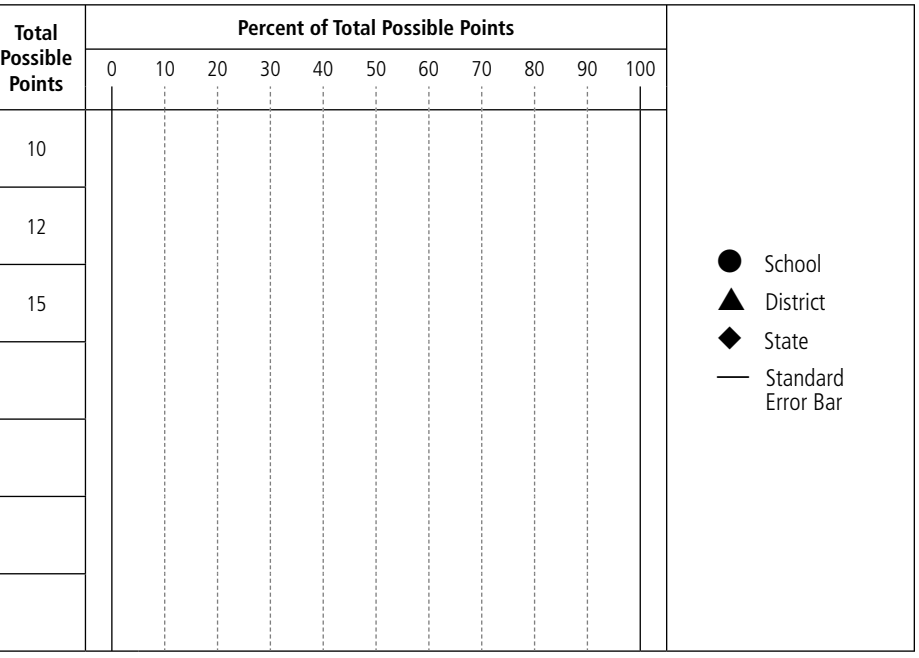
Proficient (Level 3)
Student's writing demonstrates an ability to respond to prompt/task. Focus is clear and maintained throughout the response. Response is organized with a beginning, middle and end with appropriate transitions. Details are sufficiently elaborated to support focus. Sentence structures and language use are varied. Response demonstrates control of conventions; errors may occur but do not interfere with meaning.

Partially Proficient (Level 2)
Student's writing demonstrates an attempt to respond to prompt/task. Focus may be present but not maintained. Organizational structure is inconsistent with limited use of transitions. Details may be listed and lack elaboration. Sentence structures and language use are unsophisticated and may be repetitive. Response demonstrates inconsistent control of conventions.

Substantially Below Proficient (Level 1)
Student's writing demonstrates a minimal response to prompt/task. Focus is unclear or lacking. Little or no organizational structure is evident. Details are minimal and/or random. Sentence structures and language use are minimal or absent. Frequent errors in conventions may interfere with meaning.

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
SCHOOL 2005-06 **2006-07** 2007-08 Cumulative Total													
DISTRICT 2005-06 **2006-07** 2007-08 Cumulative Total													
STATE 2005-06 **2006-07** 2007-08 Cumulative Total													

Subtopic	Total Possible Points
Structures of Language & Writing Conventions	10
Short Responses	12
Extended Response	15



Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Disaggregated Writing Results

School:
District:
State:
Code:

REPORTING CATEGORIES	School													District						State					
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	N	N	%	%	%	%	N	N	%	%	%	%	N
All Students																									
Gender																									
Male																									
Female																									
Not Reported																									
Primary Race/Ethnicity																									
American Indian or Alaskan Native																									
Asian																									
Black or African American																									
Hispanic or Latino																									
Native Hawaiian or Pacific Islander																									
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Students with an IEP																									
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Economically Disadvantaged Students																									
All Other Students																									
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Migrant Students																									
All Other Students																									
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Students Receiving Title I Services																									
All Other Students																									

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Fall 2006 NECAP Tests
School Summary
2006-2007 Students

School:
District:
State:
Code:

Reading	Enrolled	NT Approved	NT Other	Tested	Achievement Level								
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
					N	%	N	%	N	%	N	%	

Mathematics	Enrolled	NT Approved	NT Other	Tested	Achievement Level								
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
					N	%	N	%	N	%	N	%	

Writing	Enrolled	NT Approved	NT Other	Tested	Achievement Level								
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
					N	%	N	%	N	%	N	%	

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About The New England Common Assessment Program

This report highlights results from the Fall 2006 Beginning of Grade New England Common Assessment Program (NECAP) tests. The NECAP tests are administered to students in New Hampshire, Rhode Island, and Vermont as part of each state's statewide assessment program. NECAP test results are used primarily for school improvement and accountability. Achievement level results are used in the state accountability system required under No Child Left Behind (NCLB). More detailed school and district results are used by schools to help improve curriculum and instruction. Individual student results are used to support information gathered through classroom instruction and assessments.

NECAP tests in reading and mathematics are administered to students in grades 3 through 8 and writing tests are administered to students in grades 5 and 8. The NECAP tests are designed to measure student performance on grade level expectations (GLE) developed and adopted by the three states. Specifically, the tests are designed to measure the content and skills that students are expected to have as they begin the school year in their current grade – in other words, the content and skills which students have learned through the end of the previous grade.

Each test contains a mix of multiple-choice and constructed-response questions. Constructed-response questions require students to develop their own answers to questions. On the mathematics test, students may be required to provide the correct answer to a computation or word problem, draw or interpret a chart or graph, or explain how they solved a problem. On the reading test, students may be required to make a list or write a few paragraphs to answer a question related to a literary or informational passage. On the writing test, students are required to provide a single extended response of 1-3 pages and three shorter responses to questions measuring different types of writing.

This report contains a variety of school- and/or district-, and state-level assessment results for the NECAP tests administered at a grade level. Achievement level distributions and mean scaled scores are provided for all students tested as well as for subgroups of students classified by demographics or program participation. The report also contains comparative information on school and district performance on subtopics within each content area tested.

In addition to this report of grade level results, schools and districts will also receive Summary Reports, Item Analysis Reports, Released Item support materials, and student-level data files containing NECAP results. Together, these reports and data constitute a rich source of information to support local decisions in curriculum, instruction, assessment, and professional development. Over time, this information can also strengthen school's and district's evaluation of their ongoing improvement efforts.

Fall 2006
Beginning of Grade 5
NECAP Tests

Grade 5 Students in 2006-2007

District Results

District:

Code:

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Grade Level Summary Report

District:
State:
Code:

Schools and districts administered all NECAP tests to every enrolled student with the following exceptions: students who participated in the alternate assessment for the 2005-06 school year, first year LEP students, students who withdrew from the school after October 1, 2006, students who enrolled in the school after October 1, 2006, students for whom a special consideration was granted through the state Department of Education, and other students for reasons not approved. On this page, and throughout this report, results are only reported for groups of students that are larger than nine (9).

PARTICIPATION in NECAP	Number									Percentage								
	School			District			State			School			District			State		
Students enrolled on or after October 1																		
	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing
Students tested																		
Students not tested in NECAP																		
State Approved																		
Alternate Assessment																		
First Year LEP																		
Withdrew After October 1																		
Enrolled After October 1																		
Special Consideration																		
Other																		

NECAP RESULTS

	District												State											
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%		N	%	%	%	%		N	%	%	%	%	
READING																									
MATH																									
WRITING																									

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Throughout this report, percentages may not total 100 since each percentage is rounded to the nearest whole number.

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Reading Results

District:
State:
Code:

Proficient with Distinction (Level 4)
Student's performance demonstrates an ability to read and comprehend grade-appropriate text. Student is able to analyze and interpret literary and informational text. Student offers insightful observations/assertions that are well supported by references to the text. Student uses range of vocabulary strategies and breadth of vocabulary knowledge to read and comprehend a wide variety of texts.

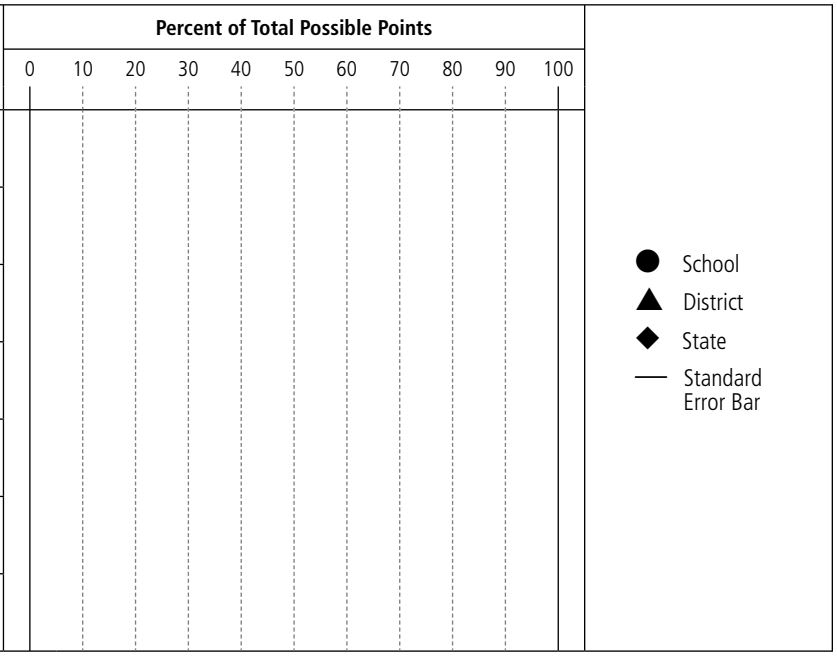
Proficient (Level 3)
Student's performance demonstrates an ability to read and comprehend grade-appropriate text. Student is able to analyze and interpret literary and informational text. Student makes and supports relevant assertions by referencing text. Student uses vocabulary strategies and breadth of vocabulary knowledge to read and comprehend text.

Partially Proficient (Level 2)
Student's performance demonstrates an inconsistent ability to read and comprehend grade-appropriate text. Student attempts to analyze and interpret literary and informational text. Student may make and/or support assertions by referencing text. Student's vocabulary knowledge and use of strategies may be limited and may impact the ability to read and comprehend text.

Substantially Below Proficient (Level 1)
Student's performance demonstrates minimal ability to derive/construct meaning from grade-appropriate text. Student may be able to recognize story elements and text features. Student's limited vocabulary knowledge and use of strategies impacts the ability to read and comprehend text.

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
SCHOOL													
2005-06													
2006-07													
2007-08 Cumulative Total													
DISTRICT													
2005-06													
2006-07													
2007-08 Cumulative Total													
STATE													
2005-06													
2006-07													
2007-08 Cumulative Total													

Subtopic	Total Possible Points
Word ID/Vocabulary	25
Type of Text	
Literary	57
Informational	48
Level of Comprehension	
Initial Understanding	52
Analysis & Interpretation	53



Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Disaggregated Reading Results

District:
State:
Code:

REPORTING CATEGORIES	District													State											
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	N	N	%	%	%	%	N	N	%	%	%	%	N
All Students																									
Gender																									
Male																									
Female																									
Not Reported																									
Primary Race/Ethnicity																									
American Indian or Alaskan Native																									
Asian																									
Black or African American																									
Hispanic or Latino																									
Native Hawaiian or Pacific Islander																									
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No Primary Race/Ethnicity Reported																									
LEP Status																									
Currently receiving LEP services																									
Former LEP student - monitoring year 1																									
Former LEP student - monitoring year 2																									
All Other Students																									
IEP																									
Students with an IEP																									
All Other Students																									
SES																									
Economically Disadvantaged Students																									
All Other Students																									
Migrant																									
Migrant Students																									
All Other Students																									
Title I																									
Students Receiving Title I Services																									
All Other Students																									

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

NOTE: Some numbers may have been left blank because fewer than ten (10) students were tested.

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Mathematics Results

District:
State:
Code:

Proficient with Distinction (Level 4)
Student's problem solving demonstrates logical reasoning with strong explanations that include both words and proper mathematical notation. Student's work exhibits a high level of accuracy, effective use of a variety of strategies, and an understanding of mathematical concepts within and across grade level expectations. Student demonstrates the ability to move from concrete to abstract representations.

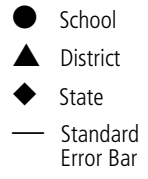
Proficient (Level 3)
Student's problem solving demonstrates logical reasoning with appropriate explanations that include both words and proper mathematical notation. Student uses a variety of strategies that are often systematic. Computational errors do not interfere with communicating understanding. Student demonstrates conceptual understanding of most aspects of the grade level expectations.

Partially Proficient (Level 2)
Student's problem solving demonstrates logical reasoning and conceptual understanding in some, but not all, aspects of the grade level expectations. Many problems are started correctly, but computational errors may get in the way of completing some aspects of the problem. Student uses some effective strategies. Student's work demonstrates that he or she is generally stronger with concrete than abstract situations.

Substantially Below Proficient (Level 1)
Student's problem solving is often incomplete, lacks logical reasoning and accuracy, and shows little conceptual understanding in most aspects of the grade level expectations. Student is able to start some problems but computational errors and lack of conceptual understanding interfere with solving problems successfully.

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
SCHOOL 2005-06 **2006-07** 2007-08 Cumulative Total													
DISTRICT 2005-06 **2006-07** 2007-08 Cumulative Total													
STATE 2005-06 **2006-07** 2007-08 Cumulative Total													

Subtopic	Total Possible Points	Percent of Total Possible Points: 0 10 20 30 40 50 60 70 80 90 100
Number & Operations	73	
Geometry & Measurement	33	
Functions & Algebra	30	
Data, Statistics, & Probability	26	



Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Disaggregated Mathematics Results

District:
State:
Code:

REPORTING CATEGORIES	District													State											
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	N	N	%	%	%	%	N	N	%	%	%	%	N
All Students																									
Gender																									
Male																									
Female																									
Not Reported																									
Primary Race/Ethnicity																									
American Indian or Alaskan Native																									
Asian																									
Black or African American																									
Hispanic or Latino																									
Native Hawaiian or Pacific Islander																									
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Currently receiving LEP services																									
Former LEP student - monitoring year 1																									
Former LEP student - monitoring year 2																									
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All Other Students																									
SES																									
Economically Disadvantaged Students																									
All Other Students																									
Migrant																									
Migrant Students																									
All Other Students																									
Title I																									
Students Receiving Title I Services																									
All Other Students																									

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NOTE: Some numbers may have been left blank because fewer than ten (10) students were tested.

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Writing Results

District:
State:
Code:

Proficient with Distinction (Level 4)
Student's writing demonstrates an ability to respond to prompt/task with clarity and insight. Focus is well developed and maintained throughout response. Response demonstrates use of strong organizational structures. A variety of elaboration strategies is evident. Sentence structures and language choices are varied and used effectively. Response demonstrates control of conventions; minor errors may occur.

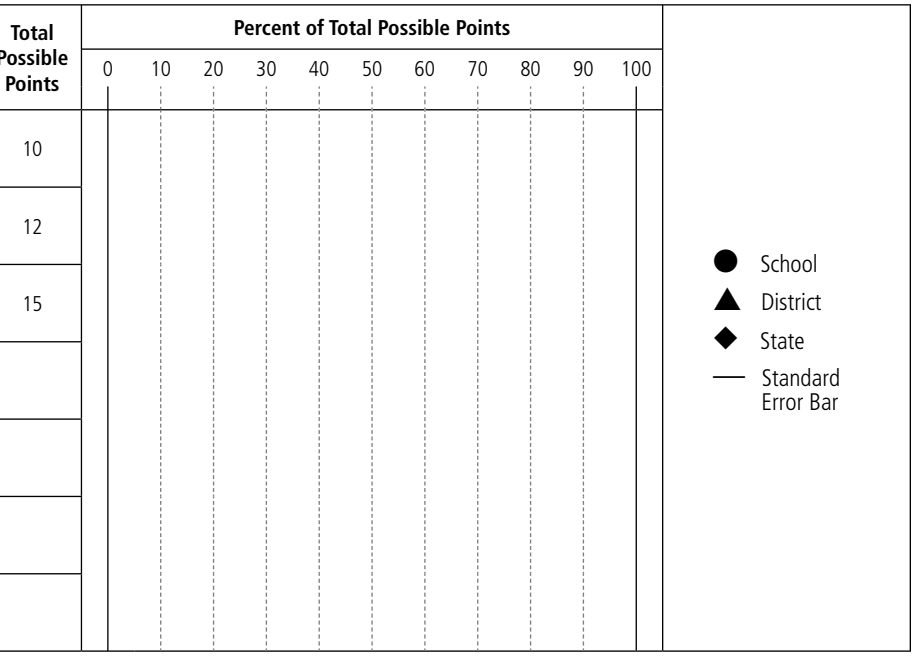
Proficient (Level 3)
Student's writing demonstrates an ability to respond to prompt/task. Focus is clear and maintained throughout the response. Response is organized with a beginning, middle and end with appropriate transitions. Details are sufficiently elaborated to support focus. Sentence structures and language use are varied. Response demonstrates control of conventions; errors may occur but do not interfere with meaning.

Partially Proficient (Level 2)
Student's writing demonstrates an attempt to respond to prompt/task. Focus may be present but not maintained. Organizational structure is inconsistent with limited use of transitions. Details may be listed and lack elaboration. Sentence structures and language use are unsophisticated and may be repetitive. Response demonstrates inconsistent control of conventions.

Substantially Below Proficient (Level 1)
Student's writing demonstrates a minimal response to prompt/task. Focus is unclear or lacking. Little or no organizational structure is evident. Details are minimal and/or random. Sentence structures and language use are minimal or absent. Frequent errors in conventions may interfere with meaning.

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
SCHOOL 2005-06 **2006-07** 2007-08 Cumulative Total													
DISTRICT 2005-06 **2006-07** 2007-08 Cumulative Total													
STATE 2005-06 **2006-07** 2007-08 Cumulative Total													

Subtopic	Total Possible Points
Structures of Language & Writing Conventions	10
Short Responses	12
Extended Response	15



Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Disaggregated Writing Results

District:
State:
Code:

REPORTING CATEGORIES	District													State											
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	N	N	%	%	%	%	N	N	%	%	%	%	N
All Students																									
Gender																									
Male																									
Female																									
Not Reported																									
Primary Race/Ethnicity																									
American Indian or Alaskan Native																									
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Fall 2006 NECAP Tests
District Summary
2006-2007 Students

District:
State:
Code:

Reading	Enrolled	NT Approved	NT Other	Tested	Achievement Level								
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
					N	%	N	%	N	%	N	%	

Mathematics	Enrolled	NT Approved	NT Other	Tested	Achievement Level								
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
					N	%	N	%	N	%	N	%	

Writing	Enrolled	NT Approved	NT Other	Tested	Achievement Level								
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
					N	%	N	%	N	%	N	%	

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Each test contains a mix of multiple-choice and constructed-response questions. Constructed-response questions require students to develop their own answers to questions. On the mathematics test, students may be required to provide the correct answer to a computation or word problem, draw or interpret a chart or graph, or explain how they solved a problem. On the reading test, students may be required to make a list or write a few paragraphs to answer a question related to a literary or informational passage. On the writing test, students are required to provide a single extended response of 1-3 pages and three shorter responses to questions measuring different types of writing.

This report contains a variety of school- and/or district-, and state-level assessment results for the NECAP tests administered at a grade level. Achievement level distributions and mean scaled scores are provided for all students tested as well as for subgroups of students classified by demographics or program participation. The report also contains comparative information on school and district performance on subtopics within each content area tested.

In addition to this report of grade level results, schools and districts will also receive Summary Reports, Item Analysis Reports, Released Item support materials, and student-level data files containing NECAP results. Together, these reports and data constitute a rich source of information to support local decisions in curriculum, instruction, assessment, and professional development. Over time, this information can also strengthen school's and district's evaluation of their ongoing improvement efforts.

Fall 2006
Beginning of Grade 5
NECAP Tests

Grade 5 Students in 2006-2007

State Results

State:

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Grade Level Summary Report

State:

Schools and districts administered all NECAP tests to every enrolled student with the following exceptions: students who participated in the alternate assessment for the 2005-06 school year, first year LEP students, students who withdrew from the school after October 1, 2006, students who enrolled in the school after October 1, 2006, students for whom a special consideration was granted through the state Department of Education, and other students for reasons not approved. On this page, and throughout this report, results are only reported for groups of students that are larger than nine (9).

PARTICIPATION in NECAP	Number									Percentage								
	School			District			State			School			District			State		
Students enrolled on or after October 1																		
	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing
Students tested																		
Students not tested in NECAP																		
State Approved																		
Alternate Assessment																		
First Year LEP																		
Withdrew After October 1																		
Enrolled After October 1																		
Special Consideration																		
Other																		

NECAP RESULTS

	State																							
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%		N	%	%	%	%		N	%	%	%	%	
READING																									
MATH																									
WRITING																									

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Throughout this report, percentages may not total 100 since each percentage is rounded to the nearest whole number.

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Reading Results

State:

Proficient with Distinction (Level 4)
Student's performance demonstrates an ability to read and comprehend grade-appropriate text. Student is able to analyze and interpret literary and informational text. Student offers insightful observations/assertions that are well supported by references to the text. Student uses range of vocabulary strategies and breadth of vocabulary knowledge to read and comprehend a wide variety of texts.

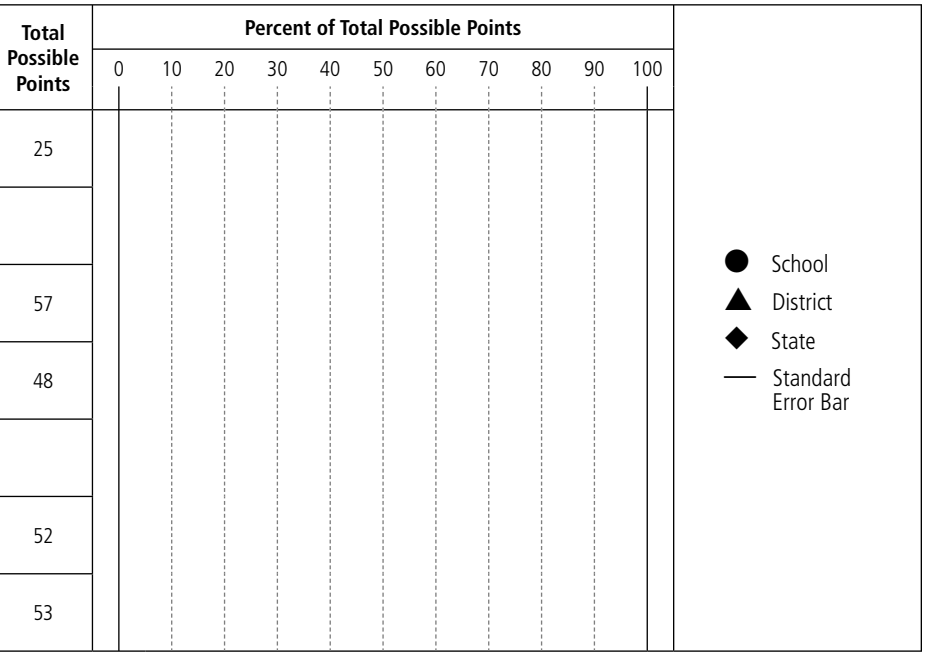
Proficient (Level 3)
Student's performance demonstrates an ability to read and comprehend grade-appropriate text. Student is able to analyze and interpret literary and informational text. Student makes and supports relevant assertions by referencing text. Student uses vocabulary strategies and breadth of vocabulary knowledge to read and comprehend text.

Partially Proficient (Level 2)
Student's performance demonstrates an inconsistent ability to read and comprehend grade-appropriate text. Student attempts to analyze and interpret literary and informational text. Student may make and/or support assertions by referencing text. Student's vocabulary knowledge and use of strategies may be limited and may impact the ability to read and comprehend text.

Substantially Below Proficient (Level 1)
Student's performance demonstrates minimal ability to derive/construct meaning from grade-appropriate text. Student may be able to recognize story elements and text features. Student's limited vocabulary knowledge and use of strategies impacts the ability to read and comprehend text.

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
SCHOOL													
2005-06													
2006-07													
2007-08 Cumulative Total													
DISTRICT													
2005-06													
2006-07													
2007-08 Cumulative Total													
STATE													
2005-06													
2006-07													
2007-08 Cumulative Total													

Subtopic	Total Possible Points
Word ID/Vocabulary	25
Type of Text	
Literary	57
Informational	48
Level of Comprehension	
Initial Understanding	52
Analysis & Interpretation	53



Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Disaggregated Reading Results

State:

REPORTING CATEGORIES	State																							
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	N	N	%	%	%	%	N	N	%	%	%	%	N
All Students																									
Gender																									
Male																									
Female																									
Not Reported																									
Primary Race/Ethnicity																									
American Indian or Alaskan Native																									
Asian																									
Black or African American																									
Hispanic or Latino																									
Native Hawaiian or Pacific Islander																									
White (non-Hispanic)																									
No Primary Race/Ethnicity Reported																									
LEP Status																									
Currently receiving LEP services																									
Former LEP student - monitoring year 1																									
Former LEP student - monitoring year 2																									
All Other Students																									
IEP																									
Students with an IEP																									
All Other Students																									
SES																									
Economically Disadvantaged Students																									
All Other Students																									
Migrant																									
Migrant Students																									
All Other Students																									
Title I																									
Students Receiving Title I Services																									
All Other Students																									

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

NOTE: Some numbers may have been left blank because fewer than ten (10) students were tested.

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Mathematics Results

State:

Proficient with Distinction (Level 4)
Student's problem solving demonstrates logical reasoning with strong explanations that include both words and proper mathematical notation. Student's work exhibits a high level of accuracy, effective use of a variety of strategies, and an understanding of mathematical concepts within and across grade level expectations. Student demonstrates the ability to move from concrete to abstract representations.

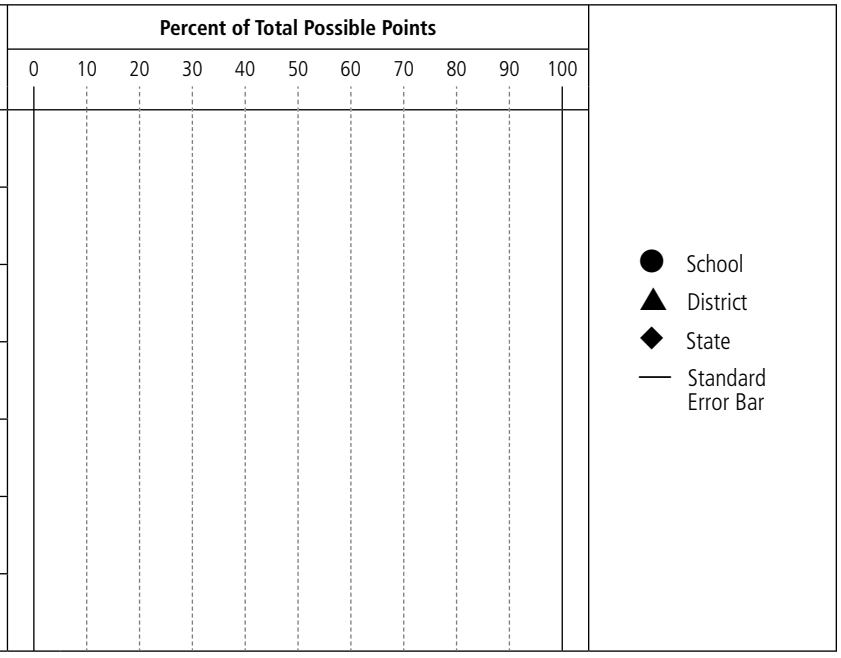
Proficient (Level 3)
Student's problem solving demonstrates logical reasoning with appropriate explanations that include both words and proper mathematical notation. Student uses a variety of strategies that are often systematic. Computational errors do not interfere with communicating understanding. Student demonstrates conceptual understanding of most aspects of the grade level expectations.

Partially Proficient (Level 2)
Student's problem solving demonstrates logical reasoning and conceptual understanding in some, but not all, aspects of the grade level expectations. Many problems are started correctly, but computational errors may get in the way of completing some aspects of the problem. Student uses some effective strategies. Student's work demonstrates that he or she is generally stronger with concrete than abstract situations.

Substantially Below Proficient (Level 1)
Student's problem solving is often incomplete, lacks logical reasoning and accuracy, and shows little conceptual understanding in most aspects of the grade level expectations. Student is able to start some problems but computational errors and lack of conceptual understanding interfere with solving problems successfully.

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
SCHOOL 2005-06 **2006-07** 2007-08 Cumulative Total													
DISTRICT 2005-06 **2006-07** 2007-08 Cumulative Total													
STATE 2005-06 **2006-07** 2007-08 Cumulative Total													

Subtopic	Total Possible Points
Number & Operations	73
Geometry & Measurement	33
Functions & Algebra	30
Data, Statistics, & Probability	26



Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Disaggregated Mathematics Results

State:

REPORTING CATEGORIES	State																							
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	N	N	%	%	%	%	N	N	%	%	%	%	N
All Students																									
Gender																									
Male																									
Female																									
Not Reported																									
Primary Race/Ethnicity																									
American Indian or Alaskan Native																									
Asian																									
Black or African American																									
Hispanic or Latino																									
Native Hawaiian or Pacific Islander																									
White (non-Hispanic)																									
No Primary Race/Ethnicity Reported																									
LEP Status																									
Currently receiving LEP services																									
Former LEP student - monitoring year 1																									
Former LEP student - monitoring year 2																									
All Other Students																									
IEP																									
Students with an IEP																									
All Other Students																									
SES																									
Economically Disadvantaged Students																									
All Other Students																									
Migrant																									
Migrant Students																									
All Other Students																									
Title I																									
Students Receiving Title I Services																									
All Other Students																									

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

NOTE: Some numbers may have been left blank because fewer than ten (10) students were tested.

Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Writing Results

State:

Proficient with Distinction (Level 4)
Student's writing demonstrates an ability to respond to prompt/task with clarity and insight. Focus is well developed and maintained throughout response. Response demonstrates use of strong organizational structures. A variety of elaboration strategies is evident. Sentence structures and language choices are varied and used effectively. Response demonstrates control of conventions; minor errors may occur.

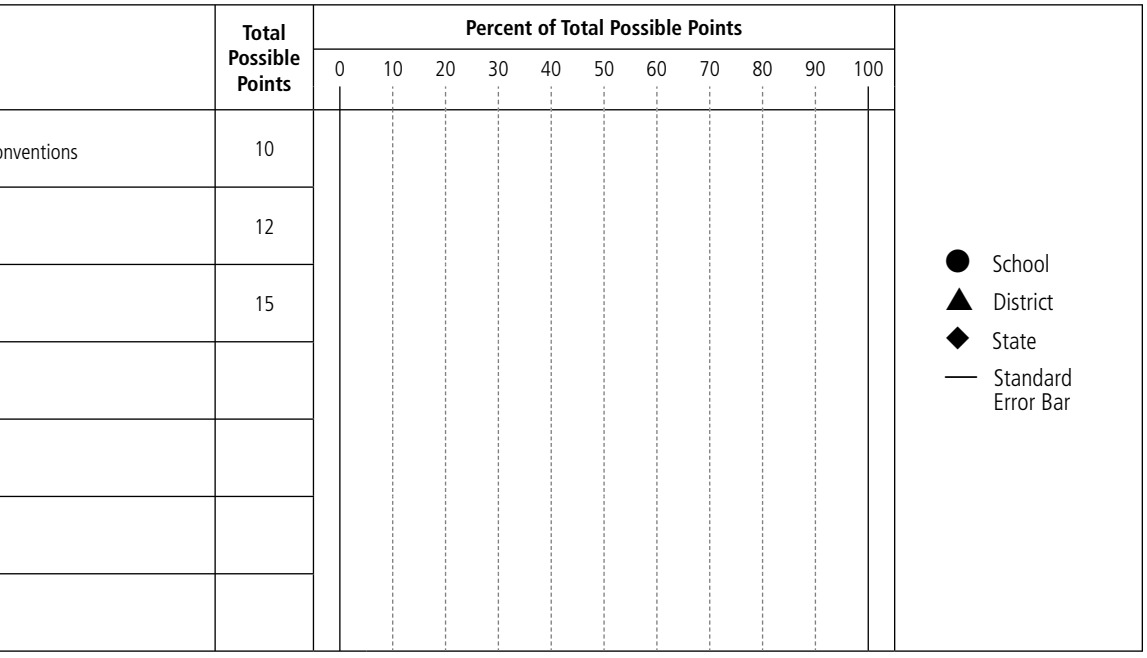
Proficient (Level 3)
Student's writing demonstrates an ability to respond to prompt/task. Focus is clear and maintained throughout the response. Response is organized with a beginning, middle and end with appropriate transitions. Details are sufficiently elaborated to support focus. Sentence structures and language use are varied. Response demonstrates control of conventions; errors may occur but do not interfere with meaning.

Partially Proficient (Level 2)
Student's writing demonstrates an attempt to respond to prompt/task. Focus may be present but not maintained. Organizational structure is inconsistent with limited use of transitions. Details may be listed and lack elaboration. Sentence structures and language use are unsophisticated and may be repetitive. Response demonstrates inconsistent control of conventions.

Substantially Below Proficient (Level 1)
Student's writing demonstrates a minimal response to prompt/task. Focus is unclear or lacking. Little or no organizational structure is evident. Details are minimal and/or random. Sentence structures and language use are minimal or absent. Frequent errors in conventions may interfere with meaning.

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
SCHOOL 2005-06 **2006-07** 2007-08 Cumulative Total													
DISTRICT 2005-06 **2006-07** 2007-08 Cumulative Total													
STATE 2005-06 **2006-07** 2007-08 Cumulative Total													

Subtopic	Total Possible Points
Structures of Language & Writing Conventions	10
Short Responses	12
Extended Response	15



Fall 2006 - Beginning of Grade 5 NECAP Tests
Grade 5 Students in 2006-2007
Disaggregated Writing Results

State:

REPORTING CATEGORIES	State																							
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	N	N	%	%	%	%	N	N	%	%	%	%	N
All Students																									
Gender																									
Male																									
Female																									
Not Reported																									
Primary Race/Ethnicity																									
American Indian or Alaskan Native																									
Asian																									
Black or African American																									
Hispanic or Latino																									
Native Hawaiian or Pacific Islander																									
White (non-Hispanic)																									
No Primary Race/Ethnicity Reported																									
LEP Status																									
Currently receiving LEP services																									
Former LEP student - monitoring year 1																									
Former LEP student - monitoring year 2																									
All Other Students																									
IEP																									
Students with an IEP																									
All Other Students																									
SES																									
Economically Disadvantaged Students																									
All Other Students																									
Migrant																									
Migrant Students																									
All Other Students																									
Title I																									
Students Receiving Title I Services																									
All Other Students																									

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

NOTE: Some numbers may have been left blank because fewer than ten (10) students were tested.

Fall 2006 NECAP Tests

State Summary

2006-2007 Students

State:

Reading	Enrolled	NT Approved	NT Other	Tested	Achievement Level								
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
					N	%	N	%	N	%	N	%	

Mathematics	Enrolled	NT Approved	NT Other	Tested	Achievement Level								
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
					N	%	N	%	N	%	N	%	

Writing	Enrolled	NT Approved	NT Other	Tested	Achievement Level								
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
					N	%	N	%	N	%	N	%	

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

APPENDIX L

DECISION RULES

Analysis and Reporting Decision Rules
New England Common Assessment Program Grades 03-08 Reading, Math, and Writing
Fall 2006

This document details rules for analysis and reporting of NECAP 0607 results after the cleanup process of student level data is completed. This document is considered a draft until the Department of Education for each state (New Hampshire, Rhode Island, and Vermont) signs off. If there are rules that need to be added or modified after said sign-off, sign-off will be obtained for each such rule.

Part 1: General Information

Grades Tested	***Subjects Tested***	***Test Type***
03, 04, 06, 07	Reading, Mathematics	Operational
05, 08	Reading, Mathematics Writing	Operational

Reports Produced
The data used for analysis are the test results of Fall administration of NECAP 0607. Every student will have a Fall 0607 testing school. Many students will also have Spring 0506 teaching school. As indicated below most reports will be generated based on Tested and Teaching schools. Teaching school/district reports will use the same shell as the tested school; however, enrollment and not tested data will not be reported. The main title on reports will indicate the NECAP grade level test. The subtitle on each report will identify if the report is based on the testing or teaching school/district. State data printed on teaching school/district reports will be the same as the state data printed on the testing school/district reports. Please note 'XXXX' refers to 2006 and Y refers to a grade (3-8).

Report:	**Tested School/District**	**Teaching School/District**
Student Report	Yes	No
School Content Area Item Analysis Report	Yes	Yes
Grade Level School Results	Yes	Yes
Grade Level District Results	Yes	Yes
Grade Level State Results	Yes	No
School Summary	Yes	Yes
District Summary	Yes	Yes
State Summary	Yes	No

School Type Impact on Data Analysis and Reporting

School Type	**ICORE Identification**
Public School (PUB)	SchoolTypeID=1 SchoolSubTypeID=1, 12, or 13
Private Schools (PRI)	SchoolTypeID=3 SchoolSubTypeID=3
Out-of-District/Private Providers (OOD)	SchoolTypeID=3 SchoolSubTypeID=4
Out Placement (OUT)	SchoolTypeID=3 SchoolSubTypeID=8
Charter Schools (CHA)	SchoolTypeID=1 SchoolSubTypeID=11
Institution (INS)	SchoolTypeID=3 SchoolSubTypeID=7
Other (OTH)	SchoolTypeID=3 SchoolSubTypeID=9

Level	**Testing**		**Teaching**	
	Impact on Analysis (Tested Aggregate Denominator)	**Impact on Reporting**	**Impact on Analysis (Teaching Aggregate Denominator)**	**Impact on Reporting**
Student	n/a	Report student based on discode and schcode. District data will be blank for students tested at PRI, OOD, OUT,INS, or OTH schools. Always report tested year state data.	n/a	n/a
School	Include all students using tested school code	Generate a report for each school with at least one student enrolled using the tested school aggregate denominator. District data will be blank for students tested at PRI, OOD, OUT, INS, or OTH schools. Always report tested year state data.	Include all students using teaching school code.	Generate a report for each school with at least one student enrolled using the teaching school aggregate denominator. District data will be blank for students taught at PRI, OOD, OUT, INS, or OTH schools. Always report tested year state data.
District	For OUT and OOD schools, aggregate using the sending district. If OUT or OOD school student does not have sending district, do not include in aggregation. Do not include students tested at PRI, INS, or OTH schools.	Generate a report for each district with at least one student enrolled using the tested district aggregate denominator. Always report tested year state data.	Do not include students taught at PRI, OOD, OUT, INS, or OTH schools.	Generate a report for each district with at least one student enrolled using the teaching district aggregate denominator. Report tested year state data
State	Do not include students tested at PRI schools for NH and RI. Include all students for VT.	Always report testing year state data.	n/a	n/a

Special Circumstances Impact on Data Analysis and Reporting				
Special Circumstances	**Tested**		**Teaching**	
	Impact on Analysis (Tested Aggregate Denominator)	**Impact on Reporting**	**Impact on Analysis**	**Impact on Reporting**
Homeschooled	Do not include in school/district/state level aggregation.	Produce a parent letter based on student's discode schcode. Do not list on item analysis rosters. Print aggregate data for discode schcode where applicable. Print tested year state data.	Do not include in school/district/state level aggregation.	Do not include in reporting.
Braille	Because Braille students were not administered matrix items create a Braille form consisting of common items for aggregation of subtopic data on grade level results reports	n/a	Because Braille students were not administered matrix items create a Braille form consisting of common items for aggregation of subtopic data on grade level results reports	n/a
VT Out of Level	Refer to VT Out of Level Decision Rules	Refer to VT Out of Level Decision Rules	Refer to VT Out of Level Decision Rules	Refer to VT Out of Level Decision Rules

Minimum Required Number of Students To Report Aggregate Data	
Calculation Description	**Rule**
Number and Percent at each achievement level, Mean Scaled score by disaggregated group and aggregate level	If the number of tested students included in the denominator is less than 10, then do not report
Content Area Subcategories Average Points Earned based on common items only by aggregate level - Parent Letter	If the number of tested students included in the denominator is less than 10, then do not report
Aggregate data on Item Analysis report	No required minimum number of students.
Number and Percent of students in a participation category by aggregate level (Enrolled, Not Tested SA, Not Tested Other, Not Tested Subcategories, Tested)	No required minimum number of students.
Content Area Subtopic Percent of Total Possible Points and Standard Error Bar	If any item was not administered to at least one tested student included in the denominator or the number of tested students included in the denominator is less than 10, then do not report

Item Information			
Operational Test Items	**Items**	**IREF Notation**	**Usage**
Reading Items	Common includes multiple-choice and open-response	Form=0	Used to compute reading achievement level, scaled score and standard error for students. Also used in computing reading subscores. Included in the criterion score for item analyses. Those items identified as equating items are used to equate scores from year to year. A subset will be selected for release.
	Matrix includes multiple-choice and open-response	Form=1-9	Used in computing reading subscores for summary reports. Those items identified as equating items are used to equate scores from year to year.
	Embedded Field Test includes multiple-choice and open-response	Form=1-9; Field Test=1	Specified number of booklets will be scored and used as a possible item for next year.
	Primary Reporting Category	Refer to Reporting Category & GLE codes.doc	Each item is assigned a Primary Reporting Category. Used in subscore calculations.
Mathematics Items	Common includes multiple-choice and open-response	Form=0	Used to compute math achievement level, scaled score and standard error for students. Also used in computing math subscores. Included in the criterion score for item analyses. Those items identified as equating items are used to equate scores from year to year. A subset will be selected for release.
	Matrix includes multiple-choice and open-response	Form=1-9 (note: form 1=form 7, form 2= form 8, form 3= form 9)	Used in computing math subscores for summary reports. Those items identified as equating items are used to equate scores from year to year.
	Embedded Field Test includes multiple-choice and open-response	Form=1-9; Field Test=1	Specified number of booklets will be scored and used as a possible item for next year.
	Primary Reporting Category	Refer to Reporting Category & GLE codes.doc	Each item is assigned a Primary Reporting Category. Used in subscore calculations.
Writing Items	Common includes multiple-choice and open-response (10 multiple choice, 3 constructed response, 3 short answer, 1 extended response)	Form=0 (All Common Items)	Used to compute writing achievement level, scaled score and standard error for students. Also used in computing writing subscores. Included in the criterion score for item analyses. Writing is pre-equated. A subset will be selected for release.
	Primary Reporting Category	Refer to Reporting Category & GLE codes.doc	Each item is assigned a Primary Reporting Category. The reporting categories for writing can be based on item type.

Part 2: Student Level Data

Student Information		
Issue	**Rule Number**	**General Description**
Report Population	1	The final data used for analysis and reporting are based on DOE cleanup of scanned data and merging student scores. Students not marked for removal will be included based on decision rules and data processing specs.
Student Participation Category by Content Area		
Determine Content Area Participation Category	2	For each content area, every student will be identified as Tested or Not Tested. Each student identified as Not Tested will be assigned one reason for being Not Tested for the content area. Reason for Not Tested is categorized as Not Tested State Approved or Not Tested Other.
Tested	3	If the student does not have any Not Tested reasons identified, then treat the student as Tested
Not Tested (NT)	4	If the student has at least one Not Tested reason identified, then treat the student as Not Tested
NT State Approved (SA)	5	After applying the not tested reason hierarchy, if a student identified as Not Tested and not identified as Not Tested Other the student is treated as Not Tested State Approved.
SA Alternate Assessment	6	If content area Alternate Assessment blank or partially blank reason is marked, the student is identified as Not Tested State Approved Alternate Assessment.
SA First Year LEP	7	If content area First Year LEP blank or partially blank reason is marked, the student is identified as Not Tested State Approved First Year LEP. (Reading and Writing Only)
SA Withdrew After Oct 1	8	If content area Withdrew After October 1 is marked and at least one session in the content area has no responses, then the student is identified as Not Tested State Approved Withdrew After Oct 1
SA Enrolled After October 1	9	If content area Enrolled After October 1 is marked and at least one session in the content area has no responses, then the student is identified as Not Tested State Approved Enrolled After Oct 1
SA Special Consideration	10	If content area Special Consideration blank or partially blank reason is marked, the student is identified as Not Tested State Approved Special Consideration.
NT Other	11	If no items marked for a content area, the student is identified as Not Tested Other.
Student has multiple reasons for not testing a content area identified	12	Hierarchy for Not Tested Categories: If more than one reason for not testing at a content area is provided then select the first category indicated in the order listed below. 1) Alternate Assessment 2) First Year LEP (Reading and Writing only) 3) Special Consideration 4) Withdrew After October 1 5) Enrolled After October 1 6) Other
Session Responses	13	Use all MC responses and non-field test open response scores to determine if a session/test was administered. MC response: A,B,C,D, or * OR response: not blank Use original item responses prior to blanking out based on invalidation flags (see special circumstances rule numbers 29-31)

Student Reporting Category		
Primary Race/Ethnicity	14	Use "Ethnic" variable: 1= American Indian or Alaskan Native 2= Asian 3= Black or African American 4= Hispanic or Latino 5= Native Hawaiian or Pacific Islander 6= White (non-Hispanic) If Ethnic is not 1-6, then No Primary Race/Ethnicity Reported
Gender	15	Use "Gender" variable: M= Male F= Female If Gender is not M or F, then Not Reported
LEP Status	16	Use "LEP" variable: 1= Currently receiving LEP services, 2= Former LEP student – monitoring year 1, 3= Former LEP student – monitoring year 2, If LEP is not 1-3, then All Other Students
IEP	17	Use "IEP" variable: 1= Students with an IEP Otherwise, All Other Students
SES	18	Use "SES" variable: 1=Economically Disadvantaged Students Otherwise, All Other Students
Migrant	19	Use "Migrant" variable: 1=Migrant Students Otherwise, All Other Students
504 Plan	20	Use "Plan504" variable: 1= Students with a 504 Plan Otherwise, All Other Students (NH and VT: not applicable – 504 Plan section will be suppressed on reports)
Title 1 – Reading	21	Use "Title1rea" variable for Title 1 Reading specific data 1= Students receiving Title 1 Services Otherwise, All Other Students (VT: not applicable – Title 1 section will be suppressed on reports)
Title 1 – Mathematics	22	Use "Title1mat" variable for Title 1 Mathematics specific data 1= Students receiving Title 1 Services Otherwise, All Other Students (VT: not applicable – Title 1 section will be suppressed on reports)

cont'd

Title 1 – Writing	23	Use "Title1rea" variable for Title 1 Writing specific data 1= Students receiving Title 1 Services Otherwise, All Other Students (VT: not applicable – Title 1 section will be suppressed on reports)
Homeschooled	24	1=Homeschooled
Braille	25	Students with Braille accommodation C1 marked
Testing School/District	26	Discode, Schcode Every student will have a testing school/district.
Teaching School/District	27	sprDiscode, sprSchcode. Some students will have a teaching school/district.
Sending District	28	Senddis represents the sending district for the student Only students with a testing year out of district/out placement school may have a sending district. Non-public sending districts will be ignored. (For example: RI out placement schools have a district code of '88', sending district codes of '88' will be ignored)
Special Circumstances		
Students Tested with Non-Standard Accommodation(s) Reading	29	Students identified as Reading Tested with Non-Standard Accommodations: Students identified as Tested for Reading with at least one of "reaInvSes1," "reaInvSes2," or "reaInvSes3" marked. (Note: Prior to DOE data cleanup, MP will set the invalidation flags as follows: If reaaccF02 or reaaccF03 is marked, then mark reaInvSes1, reaInvSes2, and reaInvSes3)
Students Tested with Non-Standard Accommodation(s) Math	30	Students identified as Math Tested with Non-Standard Accommodations: Students identified as Tested for Math with at least one of "matInvSes1," "matInvSes2," "matInvSes3," or "mataccF01" marked. (Note: Prior to DOE data cleanup, MP will set the invalidation flags as follows: If mataccF03 is marked, then mark matInvSes1, matInvSes2, and matInvSes3 mataccF01 is left as marked on booklet)
Students Tested with Non-Standard Accommodation(s) Writing	31	Students identified as Writing Tested with Non-Standard Accommodations: Students identified as Tested for Writing with at least one of "wriInvSes1" or "wriInvSes2," marked. (Note: Prior to DOE data cleanup, MP will set the invalidation flags as follows: If wriaccF03 is marked, then mark wriInvSes1 and wriInvSes2)
Students Tested Incomplete in a content area	32	Students identified as Content Area Tested and at least one content area session is blank
Students ignore matrix and field test items	33	Students identified as Form = 00 for a content area, ignore all matrix and field test scores. Such students include Braille or administration issues resolved by program management.

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Student Level Test Results Calculations	
Assignment of Student Scaled Scores and Achievement Levels by Content Area	
Students identified as Tested	Students identified as Tested in a content area will receive released item scores, a scaled score, scaled score bounds, achievement level, raw total score, and subcategory scores (Writing Only, annotations)
Students identified as Not Tested	Students identified as Not Tested in a content area will not receive a scaled score, scaled score bounds, and achievement level. They will receive released item scores, raw total score, and subcategory scores.
Student Responses used to calculate total raw score, scaled score, and achievement level	Content area common items will be used for assignment of content area total raw score, scaled score and achievement level. For the students identified as tested with non standard accommodations the content area session item responses which are marked for invalidation will be treated as non-response. For the students with matAccF01 marked, the non-calculator session 1 math items will be treated as non-response.
Calculation of Scaled Score, Scaled Score Lower and Upper Bounds, Achievement Level	Psychometrics will provide a look up table based on total raw score (Content Area Total Points Earned)
Content Area Subcategories: Student	Sum the points earned by the student for the common items identified in subcategory
Content Area Total Points Earned: Student	Sum the points earned by the student for the common items
Writing Annotations	Students with a writing prompt score of 2-12 receive at least one, but up to five statements based on decision rules for annotations as outlined in Final Annotation Statements for NECAP Writing Assessment.doc.

Part 3: Calculations – This section outlines formulas for calculations based on student level data. Many calculations are done on various aggregate groups or a combination of such groups: tested grade, state, tested district, tested school, teaching district, and teaching school. Students are excluded from calculations based on school type and special circumstances for data analysis and reporting.

NECAP Reporting Calculations – Formulas		
Static Grade Y Test Results Calculations		
Calculation	*Formula*	*Report*
Content Area Subcategories: Possible Points (Common Only)	Sum the maximum possible points for the common items identified in the subcategory	Student Report; School Content Area Item Analysis Report
Content Area Subcategories: Average Points Earned Students at Proficient Level (RANGE)	Select all students with Y40 scaled score. Average the Content Area Subcategories across the students and round to the nearest tenth. Add and subtract one standard error of measurement to get the range.	Student Report
Content Area Total Points Earned	Sum the maximum possible points for common items used to calculate scaled score	School Content Area Item Analysis Report
Content Area Subtopic Total Possible Points (Common and Matrix)	Sum the maximum possible points for unique common and matrix items indicated with subtopic	Grade Level School, District, State Results

Aggregate Data Calculations possibly done by Tested Grade, Testing School/District, Teaching School/District or State			
Calculation Description	*Formula*		*Report*
Students enrolled on or after Oct 1 by content area	Number (N)	Number of students in the student population	Grade Level School/District/State Results; School/District/State Summary
	Percent (%)	100%	Grade Level School/District/State Results
Students not tested approved by content area	Number (N)	Number of students identified as not tested approved	Grade Level School/District/State Results; School/District/State Summary
	Percent (%)	100 * (Number of students identified as not tested approved/ Number of students enrolled) rounded to the nearest whole number	Grade Level School/District/State Results
Students not tested approved by not tested reason and content area	Number (N)	Number of students identified with the specific not tested reason	Grade Level School/District/State Results; School/District/State Summary
	Percent (%)	100 * (Number of students identified with the specific not tested reason/ Number of students enrolled) rounded to the nearest whole number	Grade Level School/District/State Results
Students not tested other by content area	Number (N)	Number of students identified as not tested other	Grade Level School/District/State Results; School/District/State Summary
	Percent (%)	100 * (Number of students identified as not tested other / Number of students enrolled) rounded to the nearest whole number	Grade Level School/District/State Results
Students tested by content area	Number (N)	Number of students identified as tested	Grade Level School/District/State Results; School/District/State Summary
	Percent (%)	100 * (Number of students identified as tested/ Number of students enrolled) rounded to the nearest whole number	Grade Level School/District/State Results; School/District/State Summary
Students with achievement level by content area	Number (N)	Number of students at the achievement level	Grade Level School/District/State Results; School/District/State Summary
	Percent (%)	100* (Number of students at the achievement level / Number of tested students) rounded to the nearest whole number	Student Report; Grade Level School/District/State Results; School/District/State Summary
Mean Scaled Score by content area	For students identified as tested, (sum of students' scaled scores/ number of tested students) rounded to the nearest whole number		Grade Level School/District/State Results; School/District/State Summary

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Historical Data	Yearly	Use aggregated results as calculated for the given year		Grade Level School/District/State Results
	Cumulative Total	Number (N)	Sum up the yearly results for each category where the number tested is greater than or equal to 10.	
		Percent (%) for each achievement level	100*(Number of students at the achievement level cumulative total / Number of students tested cumulative total) rounded to the nearest whole number	
		Mean Scaled Score	For years where the number tested is greater than or equal to 10, (Sum of (yearly number tested * yearly mean scaled score))/ (sum of yearly number tested) rounded to the nearest whole number	
Content Area Subtopic Percent of Total Possible Points (Common and Matrix)	For each unique common and matrix item calculate the average student score as follows: (sum student item score/number of tested students administered the item). 100 * (Sum the average score for items in the subtopic)/(Total Possible Points for the subtopic) rounded to the nearest whole number.			Grade Level School/District/State Results
Content Area Subtopic Percent of Total Possible Points Standard Error Bar	Before multiplying by 100 and rounding the Percent of Total Possible points (ppe) calculate standard error for school, district and state: 100* (square root (((ppe)*(1-ppe)/number of tested students))) rounded to the nearest whole number Standard Error Bar: Percent of Total Possible Points +/- Standard Error			Grade Level School/District/State Results
Content Area Disaggregated Results	Use the same formulas for the appropriate calculations, but only include students in the aggregate denominator identified in the reporting category			Grade Level School/District/State Results
Content Area Subcategories: Average Points Earned (Common Only)	(Sum student content area subcategory scores across tested students)/(number of tested students) rounded to the nearest tenth			Student Report; School Content Area Item Analysis Report
Percent Correct/Average Score for each released item:	For students identified as tested: If MC item: 100*(Number of students with correct response/Number of students identified as Tested) rounded to the nearest whole number Non-MC item: average students raw score rounded to the nearest tenth Non-response by a tested student is treated as a score of 0.			School Content Area Item Analysis Report

Part 4: Reports

NECAP Student Report				
Report Sections				
Student Header Information	Student Name	If "FNAME" or "LNAME" is not missing then print "FNAME MI LNAME" otherwise print "No Name Provided" (note: if MI is missing then put one space between FNAME and LNAME)		
	Grade	Print enrolled grade (NH and RI enrolled grade equals tested grade)		
	School	Use abbreviated tested school name in ICORE based on School Type decision rule		
	District	Use abbreviated tested district name in ICORE based on School Type decision rule		
	State	NH, RI, or VT		
Fall XXXX – Beginning of Grade Y NECAP Test Results by Content Area	Students identified as Tested for the content area	Achievement Level	Print complete achievement level name student earned	
		Scaled Score	Print three digit scaled score student earned	
		Graphic Display	Place vertical black bar for student scaled score with gray horizontal bounds.	
		Special Notes	If student identified as non-standard accommodation for content area, then place '**' after content area earned achievement level If a student is identified as tested incomplete for content area, then place a symbol TBD.	
	Students identified as Not Tested for the content area	Achievement Level	Print not tested reason	
		Scaled Score	Leave blank	
		Graphic Display	Leave blank	
This Student's Achievement Level Compared to Other Beginning of Grade Y Students by School, District, and State by Content Area	Content Area Student Column	Student identified as Tested by content area		Print check mark
		Student identified as Not Tested by content area		Leave blank
	Percent of students with achievement level School/District/State aggregate levels	Print aggregate data based on school type and minimum N size rules		
This Student's Performance in Content Area Subcategories by content area	Possible Points	Always print based on tested grade		
	Student	Students identified as Tested Student	Print student scores	
		Students identified as Not Tested	Leave blank	
		Special Notes	If student identified as non-standard accommodation for content area, then place '**' after student points earned for each subcategory	
	School/District/State Average points earned	Print aggregate data based in school type and minimum N size rules		
	Students at Proficient Average Points Earned Range	Always print based on tested grade		
Writing Annotations (Grade 05 and 08 only)	For students with a writing prompt score of 2-12, print at least one, but up to five statements based on decision rules for annotations as outlined in Final Annotation Statements for NECAP Writing Assessment.doc. Otherwise leave blank			

NECAP School Item Analysis Report by Content Area		
Report Sections		
School Header Information	School	Use abbreviated school name in ICORE based on School Type decision rule
	District	Use abbreviated district name in ICORE based on School Type decision rule
	State	New Hampshire, Rhode Island, or Vermont
	Code	For NH: SAU Code - District Code – School Code For RI and VT: District Code – School Code
Released Item Header Information	Released Item Number	Print 1-17, shade where not applicable
	Content Strand	Print as described in Reporting Category & GLE Codes.doc
	GLE Code	Print as described in Reporting Category & GLE Codes.doc
	Depth of Knowledge Code	Print as described in Reporting Category & GLE Codes.doc
	Item Type	Print MC, CR, SA, WP
	Correct MC Response	For MC items, print key (A,B, C, or D)
	Total Possible Points	Print 1,2,4,or 12 for Released Items, For Subcategory and Total Points earned print appropriate total possible points
Students listed on Roster	Non-homeschooled students in the school	
Name/Student ID	For students with either LNAME or FNAME available, print "LNAME , FNAME MI', otherwise print "NO NAME PROVIDED"	
	Student ID: print RPTStudID	
	Order of Students: List students alphabetically by last name. List "NO NAME PROVIDED" students last. Print student data in groups of six.	
Student Released Items Responses/Scores	Students Identified as Tested for the content area	For students identified as Content Area Tested with Non-Standard Accommodations print '-' for the invalidated items. Otherwise, print '+' for correct MC score, or "A","B","C","D","*" or blank for MC items. For open response items print whole number student score. If a student is scored 'B', then leave item score blank. Do not print 'B'.
	Students Identified as Not Tested for the content area	Print '+' for correct MC score, or "A","B","C","D","*" or blank for MC items. For open response items print whole number student score. If a student is scored 'B', then leave item score blank. Do not print 'B'. Print '-' for the invalidated items based on "reaInvSes1," "reaInvSes2," or "reaInvSes3", "matInvSes1," "matInvSes2," "matInvSes3," mataccF01," "wriInvSes1," and "wriInvSes2" flags
Student Subcategory Points Earned, Total Points Earned, Scaled Score	Students Identified as Tested for the content area	Print subcategory points earned, total points earned, and scaled score
	Students Identified as Not Tested for the content area	Print subcategory points earned, total points earned. Leave scaled score blank.
Achievement Level	Students Identified as Tested for the content area	Print abbreviated achievement level (1,2,3,4)
	Students Identified as Not Tested for the content area	Print abbreviated not tested reason (A,L,W,E,S,N)

cont'd

Student Special Notes	Print symbol next to not tested students. If a student is identified as tested incomplete for content area, then place a symbol TBD.
School/District/State Percent Correct/Average Score and Average Subcategory Points Earned	Always print aggregate data regardless of N-size, based on school type decision rules

NECAP Grade Level School/District/State Results		
Report Sections		
Report Header Information (when applicable)	School	Use abbreviated school name in ICORE based on School Type decision rule
	District	Use abbreviated district name in ICORE based on School Type decision rule
	State	New Hampshire, Rhode Island, or Vermont (State graphic on first page)
	Code	For NH: SAU Code - District Code – School Code For RI and VT: District Code – School Code
PARTICIPATION in NECAP by content area	Testing Level Report	Always print Number and Percent based on school type decision rules
	Teaching Level Report	Leave blank
NECAP Results by content area	Testing Level Report	Always print based on N-size and school type decision rules.
	Teaching Level Report	Leave blank Enrolled N, NT Approved N, NT Other N blank. Print Tested N, N & % at each achievement level, Mean Scaled score based on N-size and school type decision rules.
Historical NECAP Results by content area	Testing Level Report	Always print current year, prior year, and cumulative total results based on N-size and school type decision rules. Leave future years blank.
	Teaching Level Report	Leave blank Enrolled N, NT Approved N, NT Other N blank. Print Tested N, N & % at each achievement level, Mean Scaled score based on N-size and school type decision rules.
Subtopic Results by content area	Testing Level Report	Always print based on N-size and school type decision rules.
	Teaching Level Report	Always print based on N-size and school type decision rules.
Disaggregated Results by content area	Testing Level Report	Always print based on N-size and school type decision rules.
	Teaching Level Report	Leave blank Enrolled N, NT Approved N, NT Other N blank. Print Tested N, N & % at each achievement level, Mean Scaled score based on N-size and school type decision rules.
	Plan 504 reporting rows will be blanked out for NH and VT. Title 1 reporting rows will be blanked out for VT. All text for the respective disaggregated categories and states will be suppressed.	
Scaled Score Results by content area	Testing Level Report	Always print based on N-size and school type decision rules.
	Teaching Level Report	Always print based on N-size and school type decision rules.

NECAP School/District/State Summary		
Report Sections		
Content Area Summary	Testing Level Report	Report entire aggregate group across grades tested and list grades tested results based on N-size and school type decision rules.
	Teaching Level Report	Leave blank Enrolled N, NT Approved N, NT Other N blank. Print Tested N, N & % at each achievement level, Mean Scaled score based on N-size and school type decision rules for entire aggregate group across grades tested and list grades tested results based on N-size and school type decision rules.

Not Tested Status Print Format		
Description	**Roster Report**	**Student Report**
Alternate Assessment	A	Alternate Assessment
First Year LEP	L	First Year LEP
Enrolled after October 1	E	Enrolled after Oct 1
Withdrew after October 1	W	Withdrew after Oct 1
Special Consideration	S	Special Consideration
Other	N	Not Tested

APPENDIX M

APPROPRIATENESS OF THE ACCOMMODATIONS ALLOWED IN NECAP GENERAL ASSESSMENT AND THEIR IMPACT ON STUDENT RESULTS

The New England Common Assessment Program

New Hampshire + Rhode Island + Vermont

Appropriateness of the Accommodations Allowed in NECAP General Assessment and Their Impact on Student Results

1) Overview & Purpose:

To meet Federal peer review requirements for approval of state assessment systems, in the spring of 2006 New Hampshire, Rhode Island and Vermont submitted extensive documentation to the United States Department of Education on the design, implementation and technical adequacy of the New England Common Assessment Program (NECAP), a state level achievement testing program developed through a collaborative effort of the three states. In response to peer review finding, the states were required to submit additional documentation for a second round of peer review, including information on the use, appropriateness, and impact of NECAP accommodations. This report was prepared in response to the questions posed by the peer reviewers, and has been included in the 2007 NECAP Technical Report for other groups or individuals who may be interested in NECAP accommodation policies and procedures, and how well they have been working.

2) Report on the Appropriateness and Comparability of Accommodations allowed in statewide NECAP General Assessment

A. Who may use accommodations in NECAP assessment?

NECAP test accommodations are available to *all* students, regardless of whether or not a disability has been identified. Accommodations allowed are not group specific. For example, students in Title I reading programs, though not formally identified as "disabled" may still need extra time on assessments. Students with limited English proficiency sometimes break their arms and need to dictate multiple choice responses. Other students may need low vision accommodations even though they are not considered to be "blind". Before they are members of any subgroup, each student is first an individual with unique learning needs. NECAP assessment accommodations policy treats students in this way. The decision to allow *all* students to use accommodations, as needed, is consistent with prior research on best practice in the provision of accommodations (c.f., Elbaum, Aguelles, Campbell, & Saleh, 2004):

> "…the challenge of assigning the most effective and appropriate testing accommodations for students with disabilities, like that of designing the most

effective and appropriate instructional programs for these students, is unlikely to be successfully addressed by disability. Instead, much more attention will need to be paid to individual student's characteristics and responses to accommodations in relation to particular types of testing and testing situations." (pp. 71-87)

The NECAP management team believes strongly that a fair and valid path of access to a universally designed test should not require that a student carry a label of disability. Rather, much like differentiated instruction, accommodated conditions of test participation that *preserve the essential construct of the standard being assessed* should be supported for *any* student who has been shown to need these differentiated test conditions. This philosophy is consistent with the NECAP team's commitment to building a universally accessible test that provides an accurate measure of what each student knows in reading and mathematics content.

The following critical variables drive the process of providing NECAP accommodations:

1. The decision to use an accommodation for an individual student must be made using a valid and carefully structured team process consistent with daily instructional practice, and

2. The accommodated test condition *must preserve the essential construct being assessed*, resulting in a criterion-referenced measure of competency considered to be comparable to that produced under standard test conditions.

B. Are NECAP Accommodations Consistent with Accepted Best Practice?

NECAP provides a Table of Standard Test Accommodations that was assembled from the experience and long assessment histories of the three partner states. The NECAP Table of Standard Accommodations was created by establishing a three state cross-disciplinary consensus reached with key expert groups: special educators, ELL specialists, and reading, writing and mathematics content specialists from each of the partner states.

In addition, the work of various stakeholder and research groups with special instructional expertise was also considered. These sources included:

- Meetings with state advocacy groups for students with severe visual impairment or blindness,
- Meetings with state advocacy groups for students who with deafness or hearing impairment, and consultations with other research-based groups like:
- The American Printing House for the Blind, Accessible Tests Division,
- The National Center on Educational Outcomes (NCEO), and
- The New England Compact Group, who conducted federally-funded enhanced assessment research on accommodations, in partnership with Boston College (inTASC group) and the Center for Applied Special Technologies (CAST).

The NECAP cross-disciplinary team, consulting with these other specialists, chose accommodations that were commonly accepted as standard, well established on a national basis, and that were consistent with assessment practice across all the NECAP states. Each identified standard accommodation was chosen to support best educational practice as it is currently understood.

Examples of the impact on accommodations design resulting from consultation with the American Printing House for the Blind experts in accessible test development included the addition to our standard accommodations of the use of an abacus in place of scrap paper for students with severe visual impairment. Recent research from the American Printing House for the Blind also indicated that 20 pt. font was producing better outcomes for students using large print accommodations (Personal communication, October, 2004). Based on this input, the NECAP team decided to provide a minimum of 20 pt. instead of 18 point font for large print editions of the NECAP assessment. This, in turn, led to improved production and type setting for large print NECAP tests. Consultation with advocacy groups for the deaf and hard of hearing led to improved item design, in particular helping item developers avoid the unnecessary use of rhyming words and homophones, supporting a decreased need for sign language accommodations with this group.

Impact of WIDA Partnership on development of Accommodations for LEP students. An important relationship exists between NECAP assessment and the NECAP partner states' active membership in WIDA/ACCESS for ELL's Assessment Consortium. New understandings in the area of accommodations policy and practice are beginning to emerge. For example, we have learned that word-to-word dictionary accommodations are most effective when used by LEP students at an intermediate level of proficiency and are not advised for beginning LEP students. The NECAP Accommodations Manual reflects this. Community learning opportunities created through the WIDA partnership have set a strong and supportive context for long term benefit and mutual growth potential. A wise investment has been made by the NECAP group in this effort.

During the last 2 years, assessment leaders from all three NECAP states, as active partners in the WIDA consortium developing the new ACCESS for ELLs Test of English Language Proficiency, have collaborated in a cross-disciplinary team process to establish accommodations policy for this English language proficiency assessment. The ACCESS for ELLs accommodations team was composed of ESOL teachers, special educators, measurement specialists, and SEA assessment leaders. All three NECAP states took an active role and learned much from this process. This joint development effort opened dialog across ELL and special education accommodation groups and continues to support the ongoing review and improvement of both ACCESS and NECAP accommodations. The states are learning from each other, and with each new development cycle, are improving the accommodations system. The community of professional practice in this area is growing. Best practice understandings are expanding with our increasing experience and communication about the needs of LEP student groups. Specifically, we are learning about the

importance of academic language to English Language Learners who are attempting to take the state-level general content assessments. Accommodations specific to this academic language support issue are being explored and considered. We are finding that vocabulary lists, practice tests, computer-based read-alouds and other supports and accommodations are eliciting positive responses from our LEP students who take the state content assessments. This will be addressed in more detail in a later section.

C. How are NECAP Accommodations Structured?

Standard Accommodations: NECAP sorts standard accommodations into 4 categories (labeled A-D), which include: A) Alternative Settings, B) Scheduling and Timing, C) Presentation Formats, and D) Response Formats. School teams may choose any combination of standard (A-D) accommodations to use with any student so long as proper accommodation selection and usage procedure is followed and properly documented (see following subsection). Students who use standard accommodations on NECAP tests receive full performance credit as earned for the test items taken under these standard conditions. NECAP standard accommodations are treated as fully comparable to test conditions where no accommodation is used.

In addition, NECAP lists 2 additional categories of altered test conditions which require formal state level review and approval on a student by student basis. These special test conditions are: E) Other Accommodations and F) Modifications. (See: NECAP Accommodations, Guidelines and Procedures Training Manual, (2005), p 5, Available on state websites listed following references.)

Non-Standard Test Conditions – Review, Monitoring and Documentation of Preservation of the Intended Construct: "Other (E type) Accommodations" are accommodations without long or wide history of use that are not listed under the standard (A-D) categories. If schools wish to use accommodations that are not listed in A-D as standard, then they must send a formal written *Request for Use of Other Accommodations* to the State Department for review and approval for usage with an individual student. This request documents the team decision and describes fully the procedure to be used. Upon receipt by the SEA, these requests are thoroughly reviewed by state assessment content specialists together with special educators to determine if the accommodation proposed will allow performance of the essential constructs intended by the impacted test items. If the requested "other" accommodation is found to allow performance that will *not alter* the intended construct or criterion referenced standard to be assessed, then the school is issued a written receipt giving permission for use of this other accommodation as a standard accommodation for one test cycle. Schools are instructed on how to document the use of this approved "E) Other Accommodation" and the SEA monitors the process, ensuring that both school test booklets and state records accurately reflect the final test data. All "E) Other Accommodations" are approved in this way by the Department and, *if approved*, are treated as standard accommodations. Item responses completed under approved "E) Other" test conditions receive full credit as earned by the student.

If a requested "other" accommodation is found by the state review team to NOT preserve the intended construct, then the review team sends the school a receipt and notice that the requested change in test condition will be considered to be a test modification "F) Modification". All items completed under these test conditions will NOT receive performance credit. An example of a non-credited "F) Modification" would be any test condition where reading test passages, items, or response options are read to a student. State reading content specialists have determined that this change in a reading test condition does, in fact, alter the decoding construct being tested in all reading items. Therefore, reading items completed under this test condition would not be credited.

Use and approval of "E) Other Accommodations" are carefully monitored by the state. If any school claims use of an "E) Other Accommodation" that has not received prior state review and documented approval, then the test data documentation is similarly flagged to reflect that an F) Modification was instead provided. This flagged situation is treated as a non-credited test modification and the items impacted are invalidated. Further, any sections of the test completed under "F) Modification" conditions are later documented in student reports as not credited due to the non-standard and non-comparable test administration conditions used.

D. How does the NECAP Structure Guide Appropriate Use of Accommodations by Schools?

In 2005, New Hampshire, Rhode Island, and Vermont collaborated on the *NECAP Accommodations Guidelines and Procedures Training Manual*. The guide was disseminated through a series of regional test coordinator's workshops, as well as additional professional development opportunities provided by the individual states, and was also posted on each states website. This tool was designed to provide schools with a structured and valid process for decision making regarding the selection and use of accommodations for students on statewide assessment. Prior studies have outlined assessment guidelines that maximize the participation of students with disabilities in large-scale assessment. The National Center on Educational Outcomes (NCEO), in Synthesis Report 25 (1996), presented a set of criteria that states should meet in providing guidelines to schools for using accommodations (pp. 13-14, and 25). The NCEO recommendations figured prominently in preparation of the NECAP accommodations guide.

The *NECAP Accommodations Guidelines and Procedures Training Manual* (2005) meets all seven of the criteria established by NCEO as follows:

1. The decision about accommodations is made by a team of educators who know the student's instructional needs. NECAP goes beyond this recommendation and requires that the student's parent or guardian also be part of this decision team, (NECAP Accommodations Manual, pp. 2-3, and 20-22).

2. The decision about accommodations is based on the student's current level of functioning and learning characteristics. (Manual, pp20-22).
3. A form is used that lists the variables to consider in making the accommodations decisions, and that documents for each student the decision and reasons for it. (Manual, pp. 20-22).
4. Accommodation guidelines require alignment of instructional accommodations and assessment accommodations. (Manual, pp2 and 20-22).
5. Decisions about accommodations are not based on program setting, category of disability, percent time in the mainstream classroom (Manual, p.15, p.20-22).
6. Decisions about accommodations are documented on the student's IEP or on an additional form that is attached to the IEP. (Manual, pp.2, 15, and 20-22).
7. Parents are informed about accommodation options and about the implications for their child (1) not being allowed to use the needed accommodations, or (2) being excluded from the accountability system when certain accommodations are used, (Manual pp 3 and 20-22).

As described above**,** NECAP states use a highly structured process for the review, approval, and monitoring of requests by schools for the use of other (non-standard) accommodations for individual students. As described in section B, above, the NECAP Accommodations Manual provides a Table of Standard Accommodations each year. The manual provides two structured decision making worksheets (pp. 20-22) to guide the decision process of educational teams. One worksheet guides the selection of standard accommodations; the second provides guidance on the selection of other accommodations. The manual contains information on the entire decision making process. In addition, the manual provides detailed descriptions and research-based information on many specific accommodations.

Ongoing Teacher Training and Support: Throughout each academic year, several teacher workshops on planning and implementing accommodations are offered at multiple locations regionally in each of the three states to teams of educators. In the spring of 2005, prior to the launch of the first NECAP assessment, a series of introductory statewide 2-hour workshops in accommodations administration was offered in multiple locations. Each year thereafter, in late summer prior to the administration of the NECAP tests, a series of accommodations usage updates is offered as part of the NECAP Test Administration Workshop series; five regional workshops are offered in each state. Additionally, each state's Department of Education has consultants who are available to provide individualized support and problem solving, as well as small and large group in-service for schools. Finally, the DOE assessment consultants work directly with a variety of statewide groups and organizations to promote the use of effective accommodations, and to gather feedback on the efficacy of the NECAP accommodation policies and procedures. These include University-based Disability Centers, statewide parent advocacy organizations, organizations representing individuals with vision and hearing disabilities. Finally,

each state has systems in place to provide schools with individualized support and consultation: New Hampshire employs two distinguished special field educators who, by appointment and free of charge, provide onsite training and support in alternate assessment and accommodations strategies. Rhode Island has an IEP Network that provides on-site consultation with schools on a variety of special services topics including planning and implementing assessment accommodations. Vermont has a cadre of district-level alternate assessment mentors who provide a point of contact for disseminating information, and who are also available in schools and school districts for intensive consultation related to the assessment needs of individual students.

Monitoring of the Use of Accommodations in the Field: Each year during the NECAP test window, the DOE content specialists schedule a limited number of on-site visitations to observe test administration as it is occurring in the schools**.** State capacity to provide such direct monitoring during the test window is limited, but such monitoring is conducted during each test window and observers report observations directly to the state assessment team. Additional on-site accommodations monitoring is provided by district special education directors and the NECAP test coordinators. Both of these groups also receive training each year. Throughout each school year, program review teams from the DOEs' special education divisions conduct on-site focused monitoring of all special education programs. These comprehensive visits include on-site monitoring of the use of accommodations for students who have Individualized Educational Programs (IEPs).

E. Are NECAP Accommodations Consistent with Recent Research Findings?

The NECAP development team has attempted to learn from the research on accommodations, but this has not been a simple matter. In 2002, Thompson, Johnstone, and Thurlow concluded in their report on universal design in large scale assessments that research validating the use of standard and non-standard accommodations has yet to provide conclusive evidence about the influence of many accommodations on test scores. In 2006, Johnstone, Altman, Thurlow, & Thompson published an updated review of 49 research studies conducted between 2002 and 2004 on the use of accommodations and again found accommodations research to be inconclusive. They noted the similarity to past findings from NCEO summaries of research (Thompson, Blount & Thurlow, 2002). The authors of the 2006 review state:

> "Although accommodations research has been part of educational research for decades, it appears that it is still in its nascence. There is still much scientific disagreement on the effects, validity, and decision-making surrounding accommodations." (p 12)

However, a frequently cited research review by Sireci, Li, & Scarpati, (2005) documented evidence of support for the accommodation of providing extended time. This accommodation is one of the most frequently used standard NECAP accommodations. Extended time accommodations appeared to hold up best under the

interaction hypothesis for judging the validity of an accommodation. In a 2006 presentation addressing lessons learned from the research on assessment accommodations to date, Sireci and Pitoniak, (2006), concluded that, in general, "accommodations being used are sensible and defensible." They replicated their prior finding that the extended time accommodation seems to be a valid accommodation and noted that many other accommodations have produced less convincing results. They noted that oral or read-aloud accommodation for math appears to be valid, but that a similar read-aloud accommodation for *reading* involves consideration of specific construct changes which threaten score comparability. These findings are also consistent with and support the NECAP accommodation policy of allowing the read-aloud accommodation for mathematics, but not allowing this accommodation for reading tests. Despite the inconclusive and conflicting current state of accommodations research, findings seem to be emerging that do, in fact, provide validation for some of the most frequently used NECAP accommodations: the extended time and mathematics read-aloud accommodations.

Accommodations for English language learners. In a presentation on the validity and effectiveness of accommodations for English language learners with disabilities, Abedi (2006) reported that students who use an English or bilingual dictionary accommodation (word meanings allowed) may be advantaged over those without access to dictionaries and that this may jeopardize the validity of the assessment. Abedi argues persuasively that linguistic accommodations for English language learners should *not* be allowed to alter the construct being tested. He also argues that the language of assessment should be the same language as that used in instruction in the classroom – otherwise student performance is hindered. NECAP assessment policy is consistent with both of these findings: ELL students may use word-to-word translations as linguistic accommodation support, but may not use dictionaries with definitions provided. Abedi's research supports this decision. Also NECAP assessment items are not translated into primary languages for ELL students. This, too, is consistent with classroom practice in the NECAP states and is supported by the current literature.

At the same conference referenced just above, Frances (2006), presented findings from a meta-analysis in which he compared the results of eleven studies of the use of linguistic accommodations provided for ELL students in large scale assessments. In his presentation, given at the LEP Partnership Meeting in Washington, DC, he noted that *no significant differences in student performance were observed for 7 of the 8 most commonly provided linguistic accommodations.* Although Frances was not recommending its use, the *only* linguistic accommodation that showed any significant positive effect on the performance of ELL students was an accommodation allowing the use of an English dictionary or glossary during statewide assessment. This is the very same accommodation that Abedi (2006) recommends *against* using because it violates intended test constructs. As noted above, in NECAP assessment, the use of word-to-word translations is an allowed standard linguistic accommodation. However, the use of an English dictionary with glossary *meanings is not* an allowable standard accommodation. It is the position of the NECAP reading content team that

allowing *any* student to use a dictionary with definitions or a glossary of meanings violates the vocabulary and comprehension constructs intended in the NECAP reading test and would invalidate test results. For this reason, NECAP does not allow this linguistic accommodation.

As reported by Frances, analysis of the remaining 7 linguistic accommodations typically allowed for ELL students showed *no significant positive effect* on test performance. These included: bilingual dictionary use, dual language booklets, dual language questions and read-aloud in Spanish, extra time to test, simplified English, and offering a Spanish version of a test. Despite the lack of positive effects observed for these other linguistic accommodations to date, NECAP does provide a number of linguistic supports for ELL students. One of these linguistic supports includes: employing the universal design technique of simplifying the English in *all* test items. Review and editing of test items for language simplicity and clarity has been a formal part of the annual process of test item development and review since the inception of the NECAP. In addition to word-to-word translations, a number of other standard linguistic accommodations are allowed in NECAP testing to provide a path of access for ELL students to show what they know and can do in reading and mathematics. Standard linguistic accommodations permitted by NECAP include: allowing mathematics test items to be read aloud to the student, allowing students to read aloud to themselves (if bundled with an individual test setting), translation of test directions into primary language, underlining key information in written directions and dictation/ scribing of reading and math test responses. NECAP assessments provide linguistic access for students who are English language learners.

As noted earlier, a number of studies have shown some positive effect of the use of the extended time and read-aloud accommodations for students in general. As ELL students continue to gain proficiency in English, they may also increasingly benefit from these accommodations. More research is needed to clarify how states can most appropriately support ELL students to show us what they know and can do.

NECAP Supported Research Studies: Through the New England Compact Enhanced Assessment Project (2007), the NECAP states have completed a number of accommodations and universal design research studies. These studies have shed additional light on the appropriateness of existing standard accommodations and have helped to inform the development of new accommodations and improved universal design of assessment. Under the Enhanced Assessment Grant, in joint partnership with: the inTASC group of Boston College, the Center for Applied Special Technologies (CAST), the state of Maine, and the Educational Development Center, Inc., the NECAP states supported research studies on accommodations and universal design in four distinct areas. These studies, summarized below, are described more fully in the appendix to this report:

- **Use of computer-based read-aloud tools.** NECAP supported a study of 274 students in New Hampshire high schools. This study, Miranda, H., Russell, M., Seeley, K., Hoffman, T., (2004), provided evidence that computer–based read

aloud accommodations led to improved content access and performance of students with disabilities when taking mathematics tests.

As direct result of this study, New Hampshire was able to build and pilot a new computer-based read aloud tool that is now under development for use with NECAP assessments for all three NECAP states. Following this New Hampshire pilot of the new computer-based read aloud tool on the state high school assessment, the New Hampshire Department of Education conducted a focus group study with participating students from Nashua North High School. The results of this focus group (May 17, 2006) are available from the New Hampshire Department of Education. One of the primary findings from this focus group was the strong impact of having experienced the read-aloud in practice test format prior to actual testing. Experience with this tool *prior to testing* appeared to be very important for student performance. High school students indicated a *very strong* preference for computer-based read aloud over the same accommodation provided by a person. Both groups of students, those with limited English proficiency and those with disabilities consistently reported that they were able to focus much more clearly on the math content (not just the words) than in prior math tests they had taken without this accommodation. Based on student report, use of this read-aloud seemed to improve content access for these students. The ability to benefit from the individual work of each of the three NECAP states is a major benefit of the tri-state partnership.

- **Use of computers to improve student writing performance on tests.** Another research study conducted by Higgins, J., Russell, M., & Hoffmann, T., (2004), studied 1000 students from the three states to examine how the use of computers for writing tests affected student performance. The study found that minority girls tended to perform about the same whether using a computer or pencil-and-paper to provide written responses. However, *all other groups*, on average, tended to perform better when using a computer to produce written responses. A minimum degree of keyboarding skill correlated with improved performance. Lack of keyboarding skill produced results that did not significantly differ from pencil-and–paper responding and therefore, appeared to 'do no harm'. As a result, NECAP states entered into talks to determine how a computer based response might be more fully supported in future versions of the assessment. The study suggested that a minimum number of words typed accurately per minute of 18-20 was the recommended threshold to obtain benefit from this accommodation. This finding has been incorporated into NECAP training and support activities. At the present time, NECAP allows use of a word processor to produce written test responses as a standard accommodation on all NECAP content tests. The research supports this practice.

- **Use of Computers for Reading Tests**. A third study conducted by Miranda, H., Russell, M., & Hoffmann, T., (2004), examined how the presentation of reading passages via computer screen impacted the test performance of 219 fourth grade students from eight schools in Vermont. This study found no significant

differences in reading comprehension scores across the 3 (silent) presentation modes studied: 1. Standard presentation on paper, 2. On computer screen with use of a scrolling feature, and 3. On computer with passages divided into sections presented as whole pages without the scrolling feature. Results from this study were not conclusive, but some trend data suggested that the scrolling presentation feature may disadvantage many students, especially those with weaker computer skills. The majority of students indicated an overall preference for computer-based presentation over pencil-and-paper. As other research studies, previously cited, continue to show that read-aloud accommodations are generally effective, it can be expected that pressure to offer computer-based read-alouds involving text presentation will increase. Additional research in this area may help shed important light on the most effective ways to provide this useful accommodation. (See also: Higgins, J., Russell, M., & Hoffmann, T., (2004).)

- **Use of Computer-Based Speak-Aloud Responses to Short Answer Items**. The states' enhanced assessment grant also supported a study by Miranda, H., Russell, M., Seeley, K., Hoffman, T., (2004) that looked at the feasibility and effectiveness of using a computer to transcribe spoken responses into written text in response to short answer test items. This was considered as a possible linguistic accommodation for use with English language learners in reading and mathematics tests. Unfortunately, this study found that it is not yet feasible to use computers to record student's verbal responses to short-answer items. A variety of technical problems occurred and students were not comfortable in speaking to the computer. The researchers concluded that, with existing technology limitations, use of this kind of computer based accommodation may not be feasible for some years.

F. What evidence has the state gathered on the impact and comparability of accommodations allowed on NECAP test scores?

Direct and Immediate Score Impact. First, as a matter of policy, there is a direct and immediate impact on NECAP test scores for students when standard accommodations (accepted *and credited* as comparable) vs. non-standard accommodations (not accepted *and not credited* as comparable) are used during test administration. The student performance score is significantly reduced for each subtest where test items and the constructs they were designed to measure have been modified by use of a non-standard accommodation. Sessions with modified items receive no credit in the student total score for that content area. If the entire reading test is read to a student, the student will earn 0 points in that content area. If only certain sessions of the reading test are read to the student, then only the score of those sessions will be impacted, but this will result in a lower overall reading content score.

Empirical bases for Comparability of NECAP Test Scores Obtained from Accommodated vs. Non-Accommodated Test Conditions: During the NECAP Pilot Test in 2004, differential item functioning (DIF) analyses were conducted on the use of accommodations by various student subgroups. In December 2006, the

NECAP Technical Advisory Committee (TAC) reviewed the use of these DIF analyses and discussed long range planning for ongoing review of the use of accommodations in NECAP assessment. There was consensus among TAC members that the current use of DIF analyses for evaluation of accommodation use allows very limited inferences to be made therefore is of minimal practical value to the states. Other general methods of organizing and reviewing accommodations data and performance outcomes should be developed for states to employ.

A NECAP TAC subgroup was formed to consider and respond to the following question: What should NECAP states be doing at this stage in our development to review use, appropriateness, design, etc, of the NECAP Accommodations and related policy & guidelines? What information and processes will help us learn, clarify & communicate how, why, and when to use what accommodations? The results of this December 2006 TAC accommodations workgroup are available on each of the three states' websites. In summary, the TAC workgroup recommended 5 categories of activity for the NECAP states:

1. Given what states have learned from initial implementation and recent research, they should review, revise, describe and more fully document NECAP Accommodations Policies and Guidelines. This should be part of an ongoing review process.

2. Explore available research on questionable or controversial accommodations. Document this review and revise where indicated.

3. Transparency of reporting should be examined. There was group consensus that the use of accommodations during assessment should be fully disclosed, and thereby made transparent in the reporting process. NECAP states should work to sort out this aspect of reporting policy and determine where and how to report what aspects of accommodation usage to parents and to the public at large.

4. States need to further address monitoring of accommodation usage. Find ways to improve the quality of district/school choices in the selection and use of accommodations for students. Strategies that take limited state resource capacity into account must be considered. The issue is fundamentally one of putting improved quality control processes in place in the most efficient, cost effective ways. Several resources currently under development may assist the states in this effort. One of these resources in already being developed in the OSEP funded General Supervision Grant to one of the NECAP states. This grant will develop digitized video clips illustrating proper ways to provide certain accommodations, especially for students with severe disabilities. Creation of this video tool may enhance state capacity to provide and distribute effective training to districts and improved local monitoring of day to day use of accommodations for both instruction and assessment.

5. Available data needs to be mined and organized on the current use of accommodations in NECAP testing. Usage and outcomes for various subgroups

should be examined. DIF analyses may not be as useful in this regard as other types of carefully planned descriptive comparisons.

Some research concerns were also identified. How do states differentiate between an access issue for a student – where the student has skills they cannot show as opposed to a lack of opportunity to learn or lack of skill development? This issue appears repeatedly in a number of research studies reviewed. It is not a simple matter to differentiate between these situations. One indicates a need for an assessment design change. The other indicates a need for instructional change. Research to help sort this out should be supported.

Test Access Fairness as One Kind of Evidence for Comparability:

NECAP states have made a commitment to work with stakeholders representing various groups of students who typically use accommodations or who may benefit from improved universal assessment design. The feedback received from these stakeholder groups is a valuable source of information and ideas for continued improvement of our assessment program.

NECAP consults regularly with experts in accessible test design at the American Printing House for the Blind in Lexington, KY (Allman (2004), and Personal Communications: (October 2004), (September 2006)). This group has informed NECAP management about the recent research in the use of larger print fonts and the abacus as standard accommodations for students with severe visual impairments. This consultation has directly impacted test development and has resulted in positive feedback from the stakeholders who represent students with visual impairment in our states.

In addition, all three states work closely with stakeholders representing students with hearing impairment and deafness to help inform test item development and improved access to test items for students with vision or hearing impairments. An example of this commitment is contained in two focus group reports prepared by the New Hampshire Department of Education; a February 2006 focus group report from NH Teachers of the Visually Impaired (TVI) on NECAP Test Accessibility for Students with Severe Visual Impairment and a May 2006 report on the performance of English language learners and students with disabilities for the on the Grade 10 New Hampshire Educational Improvement & Assessment Program (NHEIAP). The latter of these two reports addressed computer-based read aloud accommodation for mathematics assessment. *(Both Focus Group Reports are available from the New Hampshire Department of Education).*

NECAP states are also pursuing other grant–funded research to support and explore development of new comparable accommodations that might provide meaningful access to general assessment at grade level for students who currently take only alternate assessments based on alternate achievement standards.

G. Summary of the Evidence - Are NECAP Accommodations Appropriate and Do They Yield Reasonably Comparable Results?

- Yes, it is clear from the evidence cited in sections 2 A, B, C and D above, that NECAP accommodations are highly consistent with established best practice.

- For accommodations with a consistent research basis available, research evidence suggests that continued use of the following accommodations in NECAP testing is valid:
    - Extended time accommodation
    - Mathematics Read-Aloud Accommodation
    - Word-to-word translation for ELL students
    - Use of Computer-Based Read-Aloud Tools (for mathematics)
    - Use of Computers to write extended test item responses (NECAP accommodation -D1)

- Preliminary research evidence from The New England Compact Enhanced Assessment Project, presented above (2004), does not appear to support improved student performance with NECAP accommodation D6- Using assistive technology (specifically speech-to-text technology) to dictate open responses via computer. However, if consistently used in classroom settings for students with severe access limitations, sufficient familiarity may be gained to make this a viable accommodation for certain students. Further review of this accommodation by the NECAP management team is recommended.

- Early focus group results (NHDOE, May 17, 2006) and trial experience with computer-based read aloud testing is very promising and merits further research.

- NECAP Focus group responses (NHDOE, February 22, 2006) from Teachers of the Visually Impaired support existing NECAP accommodations and are helping inform improvement in other aspects of universal design of items, test booklets and materials.

- Structured DIF analysis of the performance of NECAP accommodations is in an early and inconclusive phase. Currently, development of other increasingly useful accommodations data analysis designs is going forward and is supported by all NECAP states. The NECAP Technical Advisory Committee (TAC) will continue to explore this line of inquiry in the future.

- As each yearly cycle of large scale NECAP DIF item analysis allows the group to gain insight and to clarify questions, the design of future DIF data collection may be refined to more fully inform item selection to improve the fairness and accessibility of NECAP assessment items. This exploration is highly valued by the NECAP management group and will continue to be supported. Limitations in this kind of statistical analysis will continue to occur when sample sizes are too small to draw reliable or useful conclusions.

- NECAP states are developing an ongoing review and improvement process for the NECAP accommodations policy and procedures.

Concluding Comment:

NECAP Commitment to Universal Design and Continuous Improvement. The NECAP management group has made a solid commitment to continuously improve and strengthen the universal design of our assessment instruments. As the quality of universal design elements of the NECAP assessment continues to improve, it is conceivable that the number of students who need to use accommodations may decline. In fact, this is a worthy goal. Although this would cause diminishing sample sizes and challenges for accommodations analysis, declining use of accommodations due to improved universal accessibility in overall test design would be viewed as a very positive outcome.
Since its inception in 2003, the NECAP group has supported and funded research and development in accommodations policy and procedures. This is evidenced by the many research activities generated through the multiple Enhanced Assessment Grants of the three participating states referenced earlier in this report.

The NECAP group has shown leadership in obtaining funding and actively supporting accommodations and related research in a number of areas:

1. Describing the performance of students in the assessment gap and exploring alternate ways of assessing students performing below proficient levels (see: *New England Compact Enhanced Assessment Project: Task Module Assessment System- Closing the Gap in Assessments*),
2. Research in the design and use of accommodations *(New England Compact Enhanced Assessment Project: Using Computers to Improve Test Design and Support Students with Disabilities and English-Language Learners)*,
3. The relationships among and between elements of English language proficiency test scores, academic language competency scores, and performance on NECAP academic content tests *(Parker, C. (2007))*,
4. Defining and developing technical adequacy in alternate assessments *(NHEAI Grant),*
5. Developing improved accommodations that will foster increased participation in general assessment for students currently alternately assessed *(Jorgensen & McSheehan, (2006)), and*
6. All three NECAP states are partners in the ongoing development of the new *ACCESS for ELLs*^{TM} Test of English Language Proficiency. The Vermont Test Director is a member of the Technical Advisory Committee

The NECAP Development Team has been very busy. These efforts are ongoing and will continue. We are committed to the long-term development of a well validated and highly accessible assessment program that meets the highest possible standards of quality. More importantly, we are committed to the establishment of an assessment system that effectively supports *the growth of each and every one* of our students.

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Additional Resources:

Rhode Island Department of Education, NECAP Assessment Website: http://www.ridoe.net/assessment/NECAP.aspx

Vermont Department of Education, NECAP Assessment Website: http://education.vermont.gov/new/html/pgm_assessment.html

New Hampshire Department of Education, NECAP Assessment Website: http://www.ed.state.nh.us/NECAP